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AMERICAN INSTITUTE OF PHYSICS
335 East 45th Street
New York, NY 10017-3483

EDUCATION & EMPLOYMENT
STATISTICS DIVISION

Tel. 212-661-9404

by Susanne D. Ellis

AIP Pub. No. R-151.25A

July 1988

DATA ON PHYSICS ENROLLMENTS AND DEGREES
a SUPPLEMENT

The detailed data from the annual survey of Enrollments and Degrees are presented in this supplement. The 1986–87 physics degrees and the 1987–88 physics enrollments are listed for each of the 757 physics degree granting colleges and universities in the United States. Institutions are listed alphabetically by state. The data shown for each institution consist of undergraduate physics majors, full-time, and part-time graduate students, first-year graduate students included in that total, and physics degrees granted at all levels. All freshman and sophomore enrollments are estimated by the department chairpersons. Numbers shown in brackets are estimates based on data supplied by that institution in an earlier year.

* **Institution grants master's degree as its highest physics degree. (N=89)**

** **Institution grants doctorate as its highest physics degree. (N=170)**

1 **No undergraduate degree program in physics.**

Member Societies: The American Physical Society • Optical Society of America • Acoustical Society of America • The Society of Rheology • American Association of Physics Teachers
American Crystallographic Association • American Astronomical Society • American Association of Physicists in Medicine • American Vacuum Society • American Geophysical Union

Institution	1987-88 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft / pt: Total	1st yr.	1986-87 PHYSICS DEGREES: Bach.	MS	TMS	PhD
ALABAMA										
**Alabama A+M U	5	5	3	3	33	10	10	2	1	0
Alabama State U	3	0	2	2			2			
**AL-U of, Birmingham	6	6	6	4	27	5	6	2	0	1
**AL-U of, Huntsville	10	10	7	0	121	12	3	7	1	4
**AL-U of, Tuscaloosa	10	10	4	5	27	5	4	4	0	1
**Auburn U	22	8	17	14	48	10	16	6	0	0
Birmingham-Southern Coll	2	2	3	1			2			
Jacksonville St U	(2)	(1)	(1)	0			(0)			
North Alabama-U of	3	2	4	3			1			
Samford U	1	4	3	2			1			
South Alabama-U of	5	5	5	2			0			
Stillman Coll	0	3	1	6			2			
Talladega Coll	(5)	(5)	(2)	(2)			(6)			
Tuskegee Inst	2	3	5	3			1			
ALASKA										
**Alaska-U of	5	5	4	3	27	7	7	1	3	0
ARIZONA										
**Arizona State U	13	12	34	23	78	18	19	0	4	5
**Arizona-U of	25	21	23	22	121	24	24	4	1	9
Northern Arizona U	(6)	(6)	(5)	7			(10)			
ARKANSAS										
Arkansas St U	3	2	3	2			2			
**AR-U of, Fayetteville	15	5	6	4	32	5	0	0	0	4
AR-U of, Little Rock	2	2	5	4			0			
AR-U of, Monticello	1	0	0	4			1			
AR-U of, Pine Bluff	(1)	(0)	(1)	(0)			(1)			
U of Central Arkansas	9	9	4	1			6			
Harding U	2	2	3	1			2			
Henderson St U	6	6	5	2			1			
Hendrix Coll	25	15	8	5			6			
Ouachita Baptist U	2	2	2	1			2			
Southern Arkansas U	14	8	2	2			2			
CALIFORNIA										
**Cal Inst of Tech	40	39	37	42	126	20	36	15	0	1
Cal Poly St U-San L.O.	21	12	15	12			9			

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CALIFORNIA (continued)										
Cal St Coll-Bakersfield	5	10	2	3			2			
Cal St Coll-Stanislaus	10	8	6	3			4			
Cal St Poly U-Pomona	25	20	12	10			6			
*Cal St U-Chico	7	5	7	6	2	0	7	0	0	
Cal St U-Dominguez Hills	3	3	3	4			1			
*Cal St U-Fresno	10	7	7	10	9	1	8	0	2	
Cal St U-Fullerton	8	12	24	21			12			
Cal St U-Hayward	10	8	7	17			16			
*Cal St U-Long Beach	11	12	26	20	45	24	26	0	3	
*Cal St U-Los Angeles	17	4	18	3	32	5	5	0	7	
*Cal St U-Northridge	17	23	50	70	30	10	13	4	3	
Cal St U-Sacramento	(12)	(10)	(10)	27			(20)			
Cal St U-San Bernardino	15	9	4	4			3			
**CA-U of, Berkeley	90	90	77	80	293	66	74	20	1	41
**CA-U of, Davis	121	94	38	36	67	13	26	4	2	4
1**CA-U of, Davis (Applied)	-	-	-	-	59	18	-	8	3	9
**CA-U of, Irvine	99	76	64	60	84	24	41	13	6	7
**CA-U of, Los Angeles	59	40	68	61	177	44	64	24	5	27
**CA-U of, Riverside	32	13	19	10	72	20	14	7	8	4
**CA-U of, San Diego	192	82	63	54	134	25	33	14	2	13
**CA-U of, Santa Barbara	52	42	50	39	92	16	42	0	0	12
**CA-U of, Santa Cruz	29	31	36	60	30	7	20	5	2	3
Claremont, McKenna Pitzer & Scripps Colls	1	1	0	0			1			
Harvey Mudd Coll	30	30	27	23			21			
Humboldt St Coll	15	12	3	2			15			
La Verne-U of	1	0	1	1			0			
Loma Linda U	5	2	2	3			1			
Loyola Marymount U	2	2	2	2			3			
1**Naval Postgrad. School	-	-	-	-	60	30	-	-	30	1
Occidental Coll	25	23	11	12			12			
Pacific Union Coll	10	8	6	3			2			
*Pacific-U of	2	2	8	6	2	1	1	0	0	
Point Loma Coll	14	5	4	4			3			
Pomona Coll	15	12	7	5			13			
Redlands-U of	5	3	2	3			2			
*San Diego St U	10	15	50	35	31	12	25	0	7	
San Diego-U of	4	5	1	2			2			
*San Francisco St U	20	25	30	18	38	22	15	5	3	
San Francisco-U of	3	3	5	4			6			
*San Jose State U	28	31	40	20	54	19	24	3	7	
Santa Clara-U of	4	5	12	11			11			
Sonoma St U	8	8	22	20			10			
**Southern Cal-U of (USC)	13	6	10	7	58	15	2	1	5	4
**Stanford U (Phys)	20	20	29	23	130	15	12	10	0	20
1**Stanford U (Applied)	-	-	-	-	136	25	-	14	8	22
Westmont Coll	18	10	7	5			3			
Whittier Coll	1	0	0	1			0			

Institution	1987-88 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft / pt: Total	1st yr.	1986-87 PHYSICS DEGREES: Bach.	MS	TMS	PhD
COLORADO										
Colorado Coll	10	10	12	4			9			
**Colorado School of Mines	22	18	22	23	21	10	20	2	1	2
**Colorado St U	31	27	26	28	31	10	14	4	0	2
**Colorado-U of, Boulder	96	57	51	45	156	34	37	11	2	12
Colorado-U of, Denver	10	7	6	4			4			
**Denver-U of	1	3	0	0	19	6	3	2	3	3
Fort Lewis Coll	20	15	2	4			7			
Mesa Coll	10	6	6	3			2			
Metropolitan St Coll	10	4	4	6			1			
Northern Colorado-U of	10	8	7	8			10			
Southern Colorado-U of	3	4	6	3			4			
US Air Force Academy	35	34	33	26			10			
Western St Coll	4	4	2	1			1			
CONNECTICUT										
*Bridgeport-U of	4	3	2	4	10	7	7	0	0	
Central Conn St Coll	5	2	3	6			2			
Connecticut Coll	4	3	3	1			4			
**Connecticut-U of	14	18	20	14	76	17	11	11	3	2
Fairfield U	10	5	6	6			2			
Hartford-U of	5	6	4	4			2			
New Haven-U of	0	0	1	1			0			
Southern Conn St Coll	8	6	5	4			5			
Trinity Coll	5	5	1	3			3			
**Wesleyan U	14	14	12	12	9	3	13	0	0	0
**Yale U	35	28	18	21	98	18	10	24	5	16
**Yale U (Applied)	2	1	1	1	29	6	0	3	4	8
DELAWARE										
*Delaware St Coll	14	10	7	4	5	5	9	0	0	
**Delaware-U of	13	21	16	11	45	11	8	3	1	1
DISTRICT OF COLUMBIA										
**American U	3	1	1	6	32	8	3	2	2	1
**Catholic U	5	4	3	4	55	19	0	3	2	2
Dist. of Columbia-U of	2	5	9	2			3			
Gallaudet Coll	(1)	(0)	(0)	(1)			(0)			
**George Washington U	4	4	4	4	9	1	2	0	0	1
**Georgetown U	15	16	10	7	4	0	9	0	0	1
**Howard U	10	6	4	4	15	2	2	2	3	2

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FLORIDA										
Eckerd Coll	2	3	1	1			1			
*Central Florida-U of	11	5	11	20	19	8	16	2	2	
Florida A&M U	0	2	1	1			0			
*Florida Atlantic U	4	2	4	9	9	4	4	1	2	
*Florida Inst of Tech	49	28	30	16	20	12	11	3	3	0
*Florida Intl U	4	4	5	3	5	5	4	0	0	
**Florida St U	50	50	16	17	59	17	17	3	3	8
**Florida-U of	16	15	13	17	73	16	15	1	3	4
Jacksonville U	(30)	(30)	(22)	14			(12)			
**Miami-U of	10	8	7	6	11	2	6	0	0	1
New Coll (U of South FL)	3	4	5	2			0			
Rollins Coll	8	5	2	2			3			
**South Florida-U of	25	25	15	11	22	3	13	4	1	0
Stetson U	6	7	5	4			7			
West Florida-U of	6	6	5	9			4			
GEORGIA										
Agnes Scott Coll	3	3	1	1			2			
1 *Atlanta U	-	-	-	-	9	5	-	0	0	
Augusta Coll	(5)	(5)	(4)	4			(3)			
Berry Coll	2	2	1	1			0			
Clark Coll	10	8	8	6			4			
**Emory U	3	3	10	10	14	5	3	0	3	0
**Georgia Inst of Tech	36	39	41	56	94	36	39	6	10	8
Georgia Southern Coll	8	11	9	6			6			
**Georgia St U	12	15	13	7	31	8	4	0	3	0
**Georgia-U of	18	10	7	10	36	4	10	4	1	3
Mercer U	0	0	2	0			3			
Morehouse Coll	6	8	8	6			7			
North Georgia Coll	14	12	14	11			3			
Savannah State Coll	0	0	0	0			0			
Valdosta St Coll	41	28	8	6			2			
West Georgia Coll	(5)	(5)	(5)	(3)			(2)			
HAWAII										
Hawaii-U of, Hilo	(1)	(0)	(1)	(0)			(0)			
**Hawaii-U of, Honolulu	10	5	25	20	26	8	9	1	0	2
IDAHO										
Boise St U	15	11	5	6			6			
*Idaho St U	6	10	6	3	18	11	2	4	1	
**Idaho-U of	8	9	3	7	12	6	5	1	0	1
Northwest Nazarene Coll	(12)	(10)	(9)	(7)			(5)			

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ILLINOIS										
Augustana Coll	12	12	11	11			13			
Bradley U	4	3	4	6			3			
**Chicago-U of	60	60	29	33	131	22	29	6	5	19
*DePaul U	8	18	10	6	26	5	6	1	2	
Eastern Illinois U	4	6	6	5			5			
Elmhurst Coll	6	6	7	2			2			
Greenville Coll	6	5	2	0			4			
Illinois Benedictine Coll	2	1	2	0			1			
Illinois Coll	0	0	1	1			0			
**Illinois Inst of Tech	11	9	12	9	23	8	8	0	0	3
Illinois St U	(15)	(15)	(12)	11			(7)			
**IL-U of,Chicago	35	21	18	16	84	19	9	5	10	5
**IL-U of,Urbana/Champaign	99	59	52	55	322	64	42	46	11	41
Illinois Wesleyan U	21	22	3	6			6			
Knox Coll	(5)	(5)	(3)	(3)			(2)			
Lake Forest Coll	1	1	6	5			1			
Lewis U	5	3	4	3			2			
Loyola U of Chicago	20	11	8	8			9			
MacMurray Coll	(1)	(2)	(1)	(1)			(2)			
Millikin U	1	0	2	1			1			
Monmouth Coll	7	10	3	2			2			
North Central Coll	(5)	(5)	(4)	5			(2)			
North Park Coll	6	8	9	1			4			
*Northeastern Illinois U	5	5	6	6	9	5	3	3	0	
*Northern Illinois U	10	16	10	7	42	13	7	3	4	
**Northwestern U	4	4	6	9	70	15	10	6	2	5
Principia Coll	5	5	4	2			0			
Roosevelt U	0	1	0	1			0			
**South'n IL U-Carbondale	12	6	6	5	27	5	0	3	3	2
*South'n IL U-Edwardsville	3	3	3	8	10	6	4	0	2	
*Western Illinois U	6	5	3	1	29	9	11	4	1	
Wheaton Coll	5	5	11	7			4			
INDIANA										
Anderson U	2	3	3	3			1			
*Ball St U	15	14	11	9	16	11	9	0	3	
Butler U	3	3	5	7			6			
DePauw U	12	8	9	11			12			
Earlham Coll	10	8	5	6			6			
Evansville-U of	2	5	2	3			1			
Franklin Coll	1	2	0	0			0			
Goshen Coll	(6)	(5)	(4)	3			(4)			
Grace Coll	(5)	(4)	(4)	(3)			(2)			
Hanover Coll	3	2	3	1			1			
Indpls-U of	4	3	3	3			1			
*Indiana St U	2	2	4	2	13	6	4	4	2	
**Indiana U-Bloomington	0	19	19	10	94	23	5	5	2	10
IN U/Purdue U-Ft Wayne	(4)	(3)	(2)	2			(2)			

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INDIANA (continued)										
*IN U/Purdue U-Indpls	3	5	3	1	5	2	0	0	1	
Indiana U-South Bend	4	3	1	7			2			
Manchester Coll	4	3	4	0			2			
**Notre Dame-U of	12	10	7	9	80	13	11	2	2	5
Purdue U-Calumet	2	2	2	2			1			
**Purdue U-West Lafayette	74	43	34	20	152	44	17	9	5	14
*Rose-Hulman Inst of Tech	16	9	13	9	8	2	10	0	1	
Taylor U	5	3	2	3			2			
Valparaiso U	6	7	4	10			10			
Wabash Coll	10	6	6	10			5			
IOWA										
Central Coll	4	3	3	3			2			
Coe Coll	6	2	3	2			4			
Cornell Coll	4	3	6	8			4			
Dordt Coll	2	0	0	0			0			
*Drake U	9	10	11	3	4	3	2	0	0	
Dubuque-U of	(2)	(1)	(1)	(1)			(2)			
Grinnell Coll	25	20	8	16			6			
**Iowa St U	18	11	14	20	98	23	13	0	3	16
**Iowa-U of	22	11	21	13	52	13	7	2	2	4
Loras Coll	3	4	3	5			0			
Luther Coll	10	9	10	13			4			
**Maharishi Int'l U	15	8	3	1	12	6	1	8	1	0
Morningside Coll	1	2	2	1			0			
*Northern Iowa-U of	7	7	7	13	2	1	13	0	3	
St Ambrose Coll	1	2	3	4			1			
Wartburg Coll	1	0	1	0			1			
KANSAS										
Baker U	(2)	(0)	(1)	(1)			(1)			
Benedictine Coll	4	5	3	4			3			
Bethel Coll	3	3	3	6			1			
*Emporia St U	2	0	3	2	6	1	3	0	1	
Fort Hays St U	5	3	2	3			1			
**Kansas St U	10	12	9	10	36	11	6	2	3	4
**Kansas-U of	11	11	5	16	56	19	15	1	4	4
Kansas Wesleyan U	0	0	0	1			0			
McPherson Coll	1	0	0	1			0			
Mid-America Nazarene Coll	(5)	(3)	(2)	(2)			(0)			
*Pittsburg St U	9	5	7	3	12	2	1	0	1	
Southwestern Coll	3	1	0	0			0			
Washburn U	6	4	3	2			2			
*Wichita St U	3	3	3	3	10	5	3	1	2	

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KENTUCKY										
Berea Coll	3	15	4	7			6			
Centre Coll of Ky	6	6	5	5			7			
*Eastern Kentucky U	4	3	10	7	3	2	2	0	0	
Georgetown Coll	1	1	1	0			1			
**Kentucky-U of	20	8	8	15	36	4	4	1	1	2
Kentucky Wesleyan Coll	1	2	0	1			1			
*Louisville-U of	18	15	14	9	22	5	9	5	1	
Morehead St U	5	5	3	3			3			
*Murray St U	46	16	17	35	6	4	33	0	2	
Northern Kentucky U	(5)	(5)	(4)	(5)			(1)			
Thomas More Coll	(8)	(8)	(7)	1			(3)			
Transylvania U	3	3	3	4			1			
Union Coll	(3)	(2)	(3)	0			(2)			
Western Kentucky U	17	26	11	6			6			
LOUISIANA										
Centenary Coll	9	4	10	2			3			
Dillard U	10	5	2	1			0			
Grambling St U	8	4	2	2			4			
**LA St U-Baton Rouge	24	19	13	11	73	14	3	11	0	1
LA St U-Shreveport	6	3	1	5			0			
*Louisiana Tech U	5	3	1	3	8	1	2	0	0	
Loyola U	21	6	5	6			7			
McNeese St U	4	4	2	2			1			
*New Orleans-U of	18	6	8	7	38	15	5	2	3	
*Northeast Louisiana U	3	4	4	2	15	0	1	0	2	
Northwestern St U	(2)	(2)	(2)	(1)			(2)			
Southeastern Louisiana U	6	2	0	0			4			
Southern U-Baton Rouge	9	6	4	9			3			
Southern U-New Orleans	20	30	36	10			6			
*Southwestern LA-U of	(4)	(3)	(3)	(2)	3	(2)	(0)	(0)	(1)	
**Tulane U	5	5	5	8	14	6	4	0	1	0
Xavier U	1	2	1	4			4			
MAINE										
Bates Coll	20	26	18	19			19			
Bowdoin Coll	10	6	5	9			16			
Colby Coll	8	5	4	5			2			
**Maine-U of	12	16	14	15	24	6	17	0	3	5

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MARYLAND										
Columbia Union College	6	0	0	1			0			
Frostburg St Coll	(10)	(12)	(10)	9			(2)			
**Johns Hopkins U	14	19	9	8	86	17	11	11	1	6
Loyola Coll	7	3	4	5			6			
*Maryland-U of, Balt.Cnty	14	10	10	9	8	5	2	0	0	
**Maryland-U of, Coll.Park	30	26	38	34	231	46	16	13	8	22
Morgan St U	2	3	6	7			14			
Notre Dame-Coll of	2	2	2	0			1			
Salisbury State Coll	(12)	(10)	(6)	(5)			(3)			
Towson St U	35	25	30	11			7			
US Naval Academy	44	45	51	35			22			
Washington Coll	(3)	(2)	(1)	0			(0)			
Western Maryland Coll	(3)	(3)	(2)	(1)			(2)			
MASSACHUSETTS										
Amherst Coll	8	8	6	6			8			
**Boston Coll	15	6	4	8	33	8	7	1	1	3
**Boston U	15	15	15	7	88	16	6	3		6
**Brandeis U	10	10	5	10	48	9	11	2	5	6
Bridgewater St Coll	4	2	3	4			4			
**Clark U	6	2	1	3	22	8	2	0	2	1
Curry Coll	3	2	3	0			2			
Eastern Nazarene Coll	2	0	0	3			3			
Gordon Coll	9	5	5	4			4			
Hampshire Coll	(5)	(3)	(2)	(2)			(2)			
**Harvard U (w/Radcliffe)	40	81	58	66	129	31	42	23	0	15
**Harvard U (Applied)	40	30	32	30	151	42	16	8	1	4
Holy Cross-Coll of the	(10)	(8)	(8)	(10)			(10)			
**Lowell-U of	11	28	19	27	109	21	29	2	6	5
**Mass Inst of Tech (MIT)	80	40	88	81	293	53	69	3	5	40
**MA-U of, Amherst	45	30	14	40	67	14	28	6	3	5
*MA-U of, Boston	(25)	(18)	(15)	6	(41)	(26)	(6)	(0)	(4)	
Mount Holyoke Coll	5	0	3	7			8			
North Adams St Coll	3	6	4	3			4			
**Northeastern U	7	6	0	6	85	25	5	12	3	2
Simmons Coll	1	0	0	1			0			
Smith Coll	10	8	8	3			9			
*Southeastern Mass U	4	0	2	0	15	7	3	4	0	
Suffolk U	(4)	(4)	(3)	6			(4)			
**Tufts U	8	8	1	5	47	8	12	7	1	1
Wellesley Coll	6	5	3	1			6			
Wheaton Coll	1	1	2	0			1			
Williams Coll	20	12	10	11			9			
**Worcester Polytech Inst	19	21	9	10	12	4	9	0	1	1
Worcester St Coll	7	6	6	5			3			

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MICHIGAN										
Adrian Coll	1	0	0	3			0			
Albion Coll	19	12	7	6			10			
Alma Coll	6	6	5	4			4			
*Andrews U	6	4	4	2	0	0	1	2	0	
Calvin Coll	8	9	7	2			0			
*Central Michigan U	10	5	4	3	6	5	1	0	0	
*Eastern Michigan U	15	15	15	15	37	18	10	1	5	
Grand Valley St Coll	3	2	0	1			0			
Hillsdale Coll	1	1	1	2			3			
Hope Coll	35	25	18	8			10			
Kalamazoo Coll	10	12	13	14			8			
Lawrence Inst of Tech	12	6	5	6			5			
**Michigan St U	17	14	44	12	130	40	18	6	15	7
**Michigan Technological U	15	11	9	12	25	10	5	3	1	1
**Michigan-U of, Ann Arbor	30	30	30	30	121	21	19	8	1	8
Michigan-U of, Dearborn	7	8	8	7			3			
Michigan-U of, Flint	(3)	(2)	(2)	(2)			(6)			
Northern Michigan U	6	5	5	0			1			
**Oakland U	3	5	7	6	20	2	5	1	0	0
Saginaw Valley St Coll	5	5	5	3			3			
**Wayne St U	15	8	9	16	53	12	8	5	1	2
*Western Michigan U	7	5	7	5	12	4	6	2	4	
MINNESOTA										
Augsburg Coll	12	10	3	4			4			
Bemidji St U	10	10	8	10			6			
Bethel Coll	5	5	3	4			3			
Carleton Coll	20	12	27	15			27			
Concordia Coll	10	10	6	11			2			
Gustavus Adolphus Coll	35	30	15	12			10			
Hamline U	25	17	15	10			15			
Macalester Coll	(8)	(8)	(5)	5			(5)			
*Mankato St U	8	3	2	3	16	7	1	0	1	
*Minnesota-U of, Duluth	12	7	4	5	6	4	3	1	1	
**Minnesota-U of, Mpls.	33	25	41	48	138	41	23	1	12	16
Minnesota-U of, Morris	(3)	(2)	(3)	(1)			(3)			
Moorhead St U	3	3	2	2			1			
St Catherine-Coll of	1	1	1	0			1			
St Cloud St U	7	7	14	7			2			
St Johns U	15	15	9	7			7			
St Marys Coll	8	6	3	0			3			
St Olaf Coll	49	24	15	27			16			
St Thomas-Coll of	(8)	(6)	(2)	5			(4)			
Southwest St U	4	3	4	0			3			
Winona St U	20	10	6	5			5			
MISSISSIPPI										
Jackson St U	1	1	0	0			2			

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MISSISSIPPI (continued)										
Millsaps Coll	3	5	4	3			1			
Mississippi Coll	2	2	3	1			1			
*Mississippi St U	12	3	8	8	11	1	5	0	1	
**Mississippi-U of	4	3	6	7	26	9	11	0	1	0
Mississippi Valley St U	0	0	0	0			2			
*Southern MS-U of	(8)	(12)	(6)	2	12	(6)	(2)	(0)	(1)	
Tougaloo Coll	(8)	(6)	(8)	3			(2)			
MISSOURI										
Central Missouri St U	8	13	6	4			2			
Drury Coll	2	2	0	0			0			
Missouri Southern St Coll	1	2	1	0			0			
**MO-U of, Columbia	15	15	12	10	35	6	8	0	0	4
*MO-U of, Kansas City	5	1	6	12	23	3	3	4	0	
**MO-U of, Rolla	9	7	13	15	24	4	3	2	1	3
**MO-U of, St Louis	12	8	8	4	18	6	6	0	2	0
Northeast Missouri St U	20	8	3	3			5			
Northwest Missouri St U	(2)	(2)	(2)	(0)			(1)			
Rockhurst Coll	(3)	(3)	(2)	(3)			(2)			
St Louis U	3	3	1	0			1			
*Southeast Missouri St U	(8)	(6)	(7)	(8)	0	0	(7)	0	0	
Southwest Missouri St U	28	18	13	19			10			
**Washington U	13	19	18	20	53	10	20	5	0	10
Westminster Coll	2	2	1	0			2			
William Jewell Coll	10	6	5				3			
William Woods Coll	0	0	0	0			0			
MONTANA										
**Montana St U	20	20	14	12	53	20	12	6	4	3
*Montana-U of	15	9	2	3	2	1	2	0	0	
NEBRASKA										
Chadron St Coll	2	2	2	3			5			
*Creighton U	4	4	5	7	17	7	4	2	0	
Hastings Coll	8	6	5	5			8			
Kearney St Coll	(5)	(4)	(4)	12			(3)			
**Nebraska-U of, Lincoln	12	13	12	20	43	7	9	3	0	3
Nebraska-U of, Omaha	20	15	10	5			2			
Nebraska Wesleyan U	6	5	3	2			5			
Union Coll	0	0	3	0			0			
Wayne St U	(3)	(4)	(4)	(4)			(2)			
NEVADA										
*Nevada-U of, Las Vegas	24	12	7	5	3	2	2	0	0	
**Nevada-U of, Reno	6	7	3	5	34	6	3	0	1	1

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NEW HAMPSHIRE										
**Dartmouth Coll	18	18	13	12	26	7	13	1	2	5
**New Hampshire-U of	10	10	6	8	33	10	11	1	3	4
NEW JERSEY										
Drew U	3	4	2	1			1			
Fairleigh Dickinson University-Madison	1	0	0	0			0			
*Fairleigh Dickinson University-Teaneck	1	1	0	0	12	3	3	0	1	
Georgian Court Coll	4	2	3	2			2			
Monmouth Coll	2	2	3	1			0			
Montclair St Coll	2	3	5	6			3			
**Princeton U	90	70	29	26	92	25	30	-	-	12
Rider Coll	1	0	1	1			1			
**Rutgers U-Busch	25	40	28	26	105	28	19	6	1	3
Rutgers U-Camden	5	15	15	15			14			
Rutgers U-Newark	2	2	3	4			8			
St Peters Coll	2	1	1	1			1			
Seton Hall U	10	4	2	2			2			
**Stevens Inst of Tech	30	30	27	24	76	20	30	4	8	2
Stockton St Coll	13	13	4	7			1			
Trenton St Coll	3	5	5	6			5			
NEW MEXICO										
Eastern New Mexico U	3	0	1	3			1			
New Mexico Highlands U	0	0	1	2			2			
**NM Inst of Mining & Tech	43	20	30	21	15	2	7	0	1	0
**New Mexico St U	10	12	12	8	32	7	5	0	1	1
**New Mexico-U of	15	15	22	22	111	28	3	8	0	8
NEW YORK										
**Adelphi U	22	20	6	7	17	9	3	9	0	0
Alfred U	3	3	2	2			2			
Bard Coll	2	2	2	1			1			
Barnard Coll	2	2	1	2			1			
**Brooklyn Coll (CUNY)	5	5	2	2	30	8	0	1	0	3
CW Post Coll	3	1	3	1			0			
Canisius Coll	(3)	(2)	(2)	(3)			(2)			
**City Coll (CUNY)	10	10	8	7	79	10	5	6	5	7
**Clarkson U	16	10	11	10	24	5	7	4	1	5
Colgate U	20	15	7	8			7			
**Columbia U	25	20	14	17	101	23	16	17	2	7
**Cornell U (Phys)	60	50	38	55	202	32	44	24	2	26
**Cornell U (Appl Phys)			36	38	85	14	39	23	1	19
Fordham U	12	6	2	2			9			
Hamilton Coll	12	10	6	10			5			

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NEW YORK (continued)										
Hartwick Coll	4	5	1	3			0			
Herbert Lehman Coll (CUNY)	1	2	0	0			0			
Hobart & Wm Smith Coll	4	3	0	1			0			
Hofstra U	2	2	2	1			1			
Houghton Coll	7	4	4	3			3			
**Hunter Coll (CUNY)	10	10	5	6	21	6	1	2	1	1
Iona Coll	10	20	2	1			1			
Ithaca Coll	22	12	8	7			2			
Le Moyne Coll	3	5	3	0			1			
Manhattan Coll	3	3	6	2			2			
Manhattanville Coll	0	0	0	1			1			
New York Inst of Tech	(4)	(3)	(4)	(5)			(4)			
**New York U (NYU)	10	10	8	11	88	16	6	6	3	5
**Polytechnic Inst of NY	4	2	3	2	31	6	3	1	2	3
**Queens Coll (CUNY)	3	4	6	1	27	5	1	1	3	1
**Rensselaer Polytech Inst	76	44	59	47	89	21	65	4	9	7
Roberts Wesleyan Coll	3	2	1	1			0			
Rochester Inst of Tech	26	19	13	17			7			
**Rochester-U of	40	25	27	10	98	21	17	13	1	17
1**Rockefeller U	-	-	-	-	8	2	-	-	-	2
*St Bonaventure U	1	6	3	3	7	3	1		0	
St John Fisher Coll	3	2	0	0			1			
St Johns U	1	2	1	2			4			
St Lawrence U	(5)	(4)	(5)	8			(6)			
Siena Coll	8	4	4	7			3			
**SUNY-Albany	15	15	21	23	79	23	13	2	7	10
*SUNY-Binghamton	50	35	21	26	22	7	21	0	3	
**SUNY-Buffalo	10	8	5	12	63	21	5	1	4	6
**SUNY-Stony Brook	30	40	22	20	175	54	29	14	1	20
SUNY Coll-Brockport	15	16	13	4			13			
SUNY Coll-Buffalo	17	15	10	11			11			
SUNY Coll-Cortland	24	11	8	2			13			
SUNY Coll-Fredonia	15	20	19	26			21			
SUNY Coll-Geneseo	45	40	30	13			14			
*SUNY Coll-New Paltz	6	9	7	5	12	5	5	2	1	
SUNY Coll-Oneonta	15	10	10	12			8			
SUNY Coll-Oswego	30	20	12	13			8			
SUNY Coll-Plattsburgh	3	5	4	5			6			
SUNY Coll-Potsdam	50	30	16	14			17			
SUNY Coll-Purchase	2	2	1	2			0			
Staten Island-Coll of	3	1	1	1			0			
**Syracuse U	10	10	4	6	75	5	4	4	2	4
Union Coll	4	5	6	4			3			
US Military Academy	25	25	34	25			20			
Utica Coll	5	5	3	2			6			
Vassar Coll	6	6	3	3			9			
Wagner Coll	8	8	4	2			2			
Yeshiva U	2	2	1	3			4			
York Coll (CUNY)	30	20	3	1			0			

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NORTH COROLINA										
Appalachian St U	12	16	15	11			5			
Davidson Coll	5	6	6	9			1			
**Duke U	35	30	15	13	56	8	6	9	1	8
*East Carolina U	40	25	5	5	9	2	5	0	1	
Elizabeth City St U	1	2	3	1			1			
Elon Coll	1	1	0	0			1			
Guilford Coll	14	15	14	4			9			
Lenoir-Rhyne Coll	1	3	4	5			4			
North Carolina A&T St U	(4)	(3)	(3)	(6)			(2)			
North Carolina Central U	12	8	4	4			0			
**North Carolina St U	46	40	32	29	63	14	8	3	6	2
NC-U of, Asheville	3	4	4	3			3			
**NC-U of, Chapel Hill	27	29	25	23	66	14	12	1	2	5
NC-U of, Charlotte	(12)	(10)	(6)	10			(7)			
*NC-U of, Greensboro	(15)	(12)	(12)	2	13	(3)	(6)	(0)	(2)	
NC-U of, Wilmington	5	2	4	5			4			
Pfeiffer Coll	(1)	(1)	(0)	(1)			(0)			
*Wake Forest U	10	10	5	11	6	3	15	2		
Western Carolina U	4	3	4	3			3			
NORTH DAKOTA										
Minot St Coll	2	0	2	1			2			
**North Dakota St U	3	2	3	3	11	1	2	2	0	0
**North Dakota-U of	3	4	5	3	11	4	2	0	1	0
OHIO										
1**Air Force Inst of Tech	-	-	-	-	32	11	-	1	16	0
*Akron-U of	10	13	13	9	36	13	12	2	1	
Antioch Coll	2	2	1	0			3			
Baldwin-Wallace Coll	3	3	4	2			2			
Bluffton Col	(1)	(0)	(0)	(2)			(0)			
*Bowling Green St U	2	4	8	7	9	6	3	8	2	
**Case Western Reserve U	28	11	17	15	39	8	11	1	3	1
**Cincinnati-U of	8	5	8	7	65	13	10	7	7	9
*Cleveland St U	10	10	10	7	16	15	15	6	0	
Dayton-U of	8	7	7	5			3			
Denison U	4	4	4	6			2			
Heidelberg Coll	(4)	(3)	(3)	(1)			(2)			
Hiram Coll	4	2	3	1			1			
*John Carroll U	22	15	16	2	10	4	10	3	0	
**Kent St U	19	15	11	10	57	15	3	0	3	3
Kenyon Coll	10	10	10	9			9			
Marietta Coll	(3)	(2)	(2)	(2)			(1)			

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OHIO (continued)										
*Miami U	57	43	29	21	16	9	29	0	7	
Mount Union Coll	7	4	1	2			2			
Oberlin Coll	15	15	14	11			6			
Ohio Northern U	4	0	1	0			0			
**Ohio St U	28	26	32	70	143	26	28	7	5	14
**Ohio U	14	12	8	6	59	23	2	5	2	6
Ohio Wesleyan U	7	7	8	2			5			
Otterbein Coll	4	2	0	3			1			
**Toledo-U of	28	20	8	6	27	8	5	4	4	2
Wittenberg U	16	7	5	7			10			
Wooster-U of	15	10	7	8			10			
*Wright St U	13		7	10	18	6	11	1	0	
Xavier U	10	7	12	8			6			
Youngstown St U	4	2	3	2			0			
OKLAHOMA										
Cameron U	3	5	5	2			1			
*Central St U	69	35	19	20	19	7	11	1	3	
East Central OK St U	8	7	6	3			3			
Northeastern OK St U	4	9	10	7			8			
Oklahoma Baptist U	4	2	0	0			1			
Oklahoma City U	(3)	(3)	(1)	(12)			(4)			
**Oklahoma St U	15	9	4	6	45	11	5	3	0	6
**Oklahoma-U of	7	8	9	12	36	5	5	6	3	1
OK-U of Sci and Arts of	1	2	0	0			0			
Oral Roberts U	3	4	2	0			1			
Phillips U	1	1	1	0			0			
Southeastern OK State	3	1	4	3			1			
Southern Nazarene U	(2)	(1)	(1)	(1)			(2)			
Southwestern OK State	(15)	(15)	(14)	7			(8)			
Tulsa-U of	7	3	5	6			4			
OREGON										
Eastern Oregon State Col	5	0	5	4			5			
Lewis & Clark Coll	8	4	6	4			4			
Linfield Coll	15	3	4	2			6			
1**Oregon Graduate Center	-	-	-	-	40	11	-	1	2	7
**Oregon St U	16	7	11	6	52	13	12	3	0	2
**Oregon-U of	28	23	12	10	139	44	9	15	6	6
Pacific U	4	2	3	5			2			
**Portland St U	10	9	15	8	24	8	6	1	1	0
Portland-U of	3	5	2	2			3			
Reed Coll	30	30	28	15			29			
Southern Oregon St U	1	5	1	2			5			
Willamette U	(5)	(6)	(5)	6			(4)			

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PENNSYLVANIA										
Albright Coll	7	3	4	2			2			
Allegheny Coll	10	10	10	4			15			
Bloomsburg St Coll	17	8	5	5			2			
**Bryn Mawr Coll	10	10	9	5	10	1	10	0	0	1
Bucknell U	8	8	8	4			6			
California St Coll of Pa	(2)	(2)	(1)	(2)			(1)			
**Carnegie Mellon U	40	41	30	19	79	19	25	12	0	10
Clarion St Coll	12	8	4	6			11			
Dickinson Coll	10	8	7	8			11			
**Drexel U	6	8	17	14	56	12	7	5	2	3
Duquense U	2	3	5	4			1			
East Stroudsburg St Coll	(6)	(5)	(8)	(4)			(3)			
Edinboro U	6	6	6	4			6			
Elizabethtown Coll	1	1	0	0			0			
Franklin & Marshall Coll	5	10	12	10			14			
Gannon U	(2)	(1)	(1)	(2)			(0)			
Geneva Coll	3	1	0	0			1			
Gettysburg Coll	2	4	4	4			6			
Grove City Coll	5	7	5	9			6			
Haverford Coll	3	25	7	5			5			
*Indiana U of Pa	47	33	12	16	15	7	4	3	0	
Juniata Coll	5	3	1	3			1			
Kings Coll	0	0	0	2			2			
Kutztown St Coll	5	6	8	7			3			
Lafayette Coll	2	4	4	8			1			
La Salle Coll	4	2	2	0			2			
Lebanon Valley Coll	7	4	3	1			1			
**Lehigh U	12	12	10	4	54	10	11	7	4	6
Lincoln U	28	20	16	10			13			
Lock Haven St Coll	2	1	1	3			2			
Lycoming Coll	6	4	0	7			4			
Mansfield U	23	12	10	4			5			
Millersville U	36	12	18	14			16			
Moravian Coll	12	8	6	5			6			
Muhlenberg Coll	10	12	4	5			2			
**Pennsylvania St U	20	15	39	22	91	20	27	1	5	18
**Pennsylvania-U of	10	8	6	9	103	13	10	2	2	11
**Pittsburgh-U of	5	11	13	12	88	21	8	10	6	14
St Josephs U	4	4	2	3			7			
St Vincent Coll	4	3	4	4			2			
*Scranton-U of	5	3	3	2	1	1	3	0	1	
Shippensburg U	4	3	2	5			4			
Slippery Rock U	15	10	8	4			3			
Susquehanna U	5	6	5	2			3			
Swarthmore Coll	18	15	11	7			7			
**Temple U	20	17	8	7	42	9	5	5	1	10
Thiel Coll	2	2	3	2			1			
Ursinus Coll	4	5	6	3			5			
Villanova U	7	7	3	2			2			
Wash. & Jefferson Coll	3	2	0	2			2			

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PENNSYLVANIA (continued)										
West Chester U	(20)	(15)	(12)	9			(5)			
Westminster Coll	9	9	4	2			3			
Widener U	2	2	3	2			1			
*Wilkes Coll	1	2	5	1	6	6	1	0	1	
RHODE ISLAND										
**Brown U	20	20	12	14	100	19	9	15	3	18
Providence Coll	19	5	5	3			4			
**Rhode Island-U of	10	10	5	5	21	8	3	2	0	1
SOUTH CAROLINA										
Baptist Col @ Charleston	0	0	0	0			0			
Benedict Coll	(10)	(8)	(6)	4			(3)			
Bob Jones U	29	5	10	6			10			
Charleston-Coll of	5	8	10	2			10			
Citadel, The	13	2	5	2			5			
**Clemson U	16	5	4	5	29	9	6	1	1	2
Erskine Coll	6	5	1	0			2			
Furman U	6	4	7	3			1			
Presbyterian Coll	10	8	4	2			4			
**South Carolina-U of	12	12	4	4	32	5	1	2	0	3
Wofford Coll	2	3	5	3			7			
SOUTH DAKOTA										
Augustana Coll	6	5	5	4			6			
Dakota State Coll	2	1	1	0			0			
*SD Sch. of Mines & Tech	15	8	11	5	9	5	6	0	1	
*South Dakota St U	10	8	8	8	8	4	9	0	1	
South Dakota-U of	2	3	3	4			1			
TENNESSEE										
Austin Peay St U	2	3	3	3			2			
Belmont Coll	(4)	(4)	(3)	(2)			(3)			
Carson-Newman Coll	1	3	0	1			1			
Christian Brothers Coll	4	1	1	3			2			
David Lipscomb Coll	4	4	2	3			1			
East Tennessee St U	(4)	(3)	(3)	1			(4)			
*Fisk U	6	6	10	8	7	4	8	1	0	
King Coll	4	3	4	3			3			
*Memphis St U	10	10	10	7	14	3	7	2	1	

Institution	1987-88 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft / pt: Total	1st yr.	1986-87 PHYSICS DEGREES: Bach.	MS	TMS	PhD
TENNESSEE (continued)										
Middle Tennessee St U	5	5	4	7			1			
South-U of the	5	5	7	5			10			
Southern Coll	3	2	5	1			0			
Rhodes Col (SW @ Memp.)	4	4	2	5			3			
Tennessee St U	(6)	(5)	(4)	(4)			(0)			
Tennessee Tech U	11	4	4	4			5			
TN-U of, Chattanooga	(10)	(8)	(8)	(10)			(7)			
**TN-U of, Knoxville	8	4	10	7	60	10	12	6	4	5
1**TN-U of, Space Inst.	-	-	-	-	12	1	-	0	2	0
**Vanderbilt U	15	15	9	13	59	15	6	4	3	2
TEXAS										
Abilene Christian U	5	3	0	2			3			
Angelo St U	13	11	13	15			12			
Austin Coll	5	2	2	1			1			
**Baylor U	8	6	4	3	24	12	3	2	0	2
Dallas Baptist U	(0)	(0)	(0)	(1)			(0)			
Dallas-U of	7	5	7	4			8			
*East Texas St U	8	11	8	4	10	4	6	2	3	
Hardin-Simmons U	3	2	1	2			2			
Houston Baptist U	3	3	4	3			2			
**Houston-U of	50	30	15	10	82	6	23	0	7	6
Lamar U	5	3	6	7			12			
McMurry Coll	4	2	2	1			1			
**North Texas St U	14	12	14	19	80	18	8	12	0	4
Pan American U	7	2	8	3			1			
Prairie View A&M U	(1)	(0)	(0)	(0)			(1)			
**Rice U	35	25	22	28	47	10	25	5	1	8
St Marys U	2	0	2	0			0			
*Sam Houston St U	12	13	5	8	14	9	12	0	1	
Southern Methodist U	0	3	0	2			6			
*Southwest Texas St U	16	19	16	17	7	5	9	1	1	
Southwestern U	6	3	1	0			0			
*Stephen F Austin St U	10	10	10	8	18	8	5	0	2	
Tarleton St U	1	2	3	2			1			
Texas A&I U	2	1	3	3			4			
**Texas A&M U	36	32	18	31	137	42	25	4	6	7
**Texas Christian U	6	5	4	3	15	4	1	-	-	4
Texas Southern U	5	5	6	5			4			
**Texas Tech U	30	10	5	7	46	12	7	1	1	1
**Texas-U of, Arlington	37	16	10	18	44	15	14	2	3	2
**Texas-U of, Austin	72	43	79	50	330	73	40	1	5	28
**Texas-U of, Dallas	0	0	25	17	83	20	12	9	8	5

Institution	1987-88 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft / pt: Total	1st yr.	1986-87 PHYSICS DEGREES: Bach.	MS	TMS	PhD
TEXAS (continued)										
*Texas-U of, El Paso	10	20	10	12	13	10	11	0	0	
Texas-U of, San Antonio	4	4	5	3			2			
Trinity U	(12)	(10)	(12)	(7)			(4)			
West Texas St U	4	2	2	3			2			
UTAH										
**Brigham Young U	55	36	28	33	37	5	27	3	4	0
**Utah St U	12	6	11	15	34	4	11	0	3	9
**Utah-U of	35	30	45	40	90	35	27	6	2	6
Weber St Coll	10	11	8	6			8			
Westminster Coll	(4)	(3)	(2)	(2)			(2)			
VERMONT										
Marlboro Coll	1	1	0	0			0			
Middlebury Coll	8	6	12	9			7			
Norwich U	4	4	1	2			2			
St Michael Coll	2	0	2	0			0			
*Vermont-U of	11	3	7	9	14	3	9	0	2	
VIRGINIA										
Bridgewater Coll	8	5	4	0			3			
Christopher Newport Coll	15	15	8	6			5			
Emory & Henry Coll	2	2	1	3			0			
*George Mason U	20	20	15	8	15	8	4	0	1	
Hampden-Sydney Coll	15	14	10	5			1			
*Hampton University	5	5	1	5	18	5	8	2	2	
Hollins	1	1	0	0			0			
James Madison U	15	12	4	4			7			
Longwood Coll	40	20	10	6			15			
*Lynchburg Coll	7	5	7	2	4	0	2	2	1	
Mary Washington Coll	(6)	(5)	(7)	11			(10)			
Norfolk St U	5	2	3	5			4			
**Old Dominion U	15	20	15	20	18	7	7	3	1	1
Randolph-Macon Coll	5	4	1	2			2			
Randolph-Macon Womans Co	0	2	0	0			2			
Richmond-U of	5	5	8	3			1			
Roanoke Coll	(5)	(5)	(4)	1			(2)			
Sweet Briar Coll	2	2	1	1			1			
*Virginia Commonwealth U	13	18	5	5	8	2	6	0	0	
Virginia Military Inst	15	5	5	4			7			
**Virginia Polytech Inst	50	30	22	21	49	11	23	0	6	0
*Virginia St U	8	3	8	4	8	2	2	2		
**Virginia-U of	60	40	20	19	85	26	18	1	2	9
Washington & Lee U	(3)	(2)	(3)	12			(4)			
**Coll of William & Mary	30	35	22	13	40	10	10	5	0	4

Institution	1987-88 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft / pt: Total	1st yr.	1986-87 PHYSICS DEGREES: Bach.	MS	TMS	PhD
WASHINGTON										
Central Washington U	(4)	(3)	(4)	8			(6)			
Eastern Washington U	6	6	6	3			5			
Gonzaga U	3	3	2	2			0			
Pacific Lutheran U	(4)	(3)	(3)	(5)			(4)			
Puget Sound-U of	18	25	11	6			7			
Seattle Pacific U	2	2	1	2			2			
Seattle U	(4)	(3)	(2)	6			(5)			
Walla Walla Coll	7	2	3	1			2			
**Washington St U	6	5	7	7	38	18	6	3	4	2
**Washington-U of	100	80	57	60	167	41	50	17	11	17
Western Washington U	6	6	9	19			13			
Whitman Coll	30	20	17	9			15			
Whitworth Coll	1	4	5	4			2			
WEST VIRGINIA										
Bethany Coll	4	3	3	1			4			
*Marshall U	6	3	3	3	4	3	2	0	3	
W. Virginia Inst of Tech	6	1	1	2			1			
**West Virginia U	16	8	8	7	26	7	7	1	1	0
W. Virginia Wesleyan Col	25	16	12	10			5			
Wheeling Coll	0	3	3	2			3			
WISCONSIN										
Beloit Coll	5	6	3	2			3			
Carroll Coll	10	7	1	3			5			
Carthage Coll	0	0	0	0			0			
Lawrence U	20	5	7	3			3			
*Marquette U	6	5	3	6	17	9	3	5	1	
Ripon Coll	10	5	3	2			1			
St. Norbert Coll	4	4	1	2			1			
WI-U of, Eau Claire	17	16	6	13			19			
WI-U of, Green Bay	3	1	1	3			1			
WI-U of, La Crosse	4	3	2	2			3			
**WI-U of, Madison	40	35	30	50	194	30	39	8	2	23
**WI-U of, Milwaukee	25	15	10	9	37	12	14	5	3	3
*WI-U of, Oshkosh	6	3	3	6	10	7	3	0	1	
WI-U of, Parkside	3	3	4	0			1			
WI-U of, Platteville	3	1	2	0			5			
WI-U of, River Falls	12	12	11	20			7			
WI-U of, Stevens Point	5	8	5	6			4			
WI-U of, Superior	3	1	6	2			7			
WI-U of, Whitewater	3	8	6	8			5			
WYOMING										
**Wyoming-U of	8	3	4	5	27	7	1	0	0	3

A1960-2,34 1189

AMERICAN INSTITUTE OF PHYSICS
335 East 45th Street
New York, NY 10017-3483

AIP REPORT

EDUCATION & EMPLOYMENT
STATISTICS DIVISION
Tel. 212-661-9404

by Susanne D. Ellis

AIP Pub. No. R-151.25B

July 1988

DATA ON ASTRONOMY ENROLLMENTS AND DEGREES
a SUPPLEMENT

This supplement is an institutional listing of the 65 degree-granting astronomy departments in the U.S., 27 of which are combined physics and astronomy departments.

Notations used in this supplement are:

- **C** Combined physics and astronomy department.
- **S** Separate astronomy department.
- ***** Institution grants master's degree as its highest astronomy degree.
- ****** Institution grants doctorate as its highest astronomy degree.
- **1** No undergraduate degree program in astronomy.

Member Societies: The American Physical Society • Optical Society of America • Acoustical Society of America • The Society of Rheology • American Association of Physics Teachers American Crystallographic Association • American Astronomical Society • American Association of Physicists in Medicine • American Vacuum Society • American Geophysical Union

Institution	Type of dept.	1987 - 88 ASTRONOMY ENROLLMENTS: Introductory Sci.	Introductory Nonsci.	Undergrad. Jrs.	Undergrad. Srs.	Graduate students f-t& p-t Total	Graduate students f-t& p-t 1st yr.	1986 - 87 ASTRONOMY DEGREES: BS	MS	TMS	PhD
ARIZONA											
**AZ-U. of	S	40	1 600	22	16	32	6	11	0	0	2
CALIFORNIA											
**CA Inst. of Tech.	C	25	0	2	2	21	3	3	0	0	3
**CA-U. of Berkeley	S	150	1 309	7	9	29	6	4	1	0	2
**CA-U. of Los Angeles	S	179	967	18	8	20	3	0	0	1	3
1**CA-U. of Santa Cruz	S	50	1 130	-	-	25	2	-	5	0	7
*San Diego State U.	S	-	700	8	8	18	10	5	1	2	-
Southern CA-U. of	S	34	424	4	2	-	-	1	-	-	-
COLORADO											
1**CO-U. of Boulder (Astro-Geophysics)	S	-	1 500	-	-	34	6	-	0	0	5
CONNECTICUT											
*Wesleyan U.	S	0	60	1	2	3	1	2	0	1	-
**Yale U.	S	10	57	3	1	13	4	1	3	-	2
DELAWARE											
**DE-U. of	C	0	53	0	2	5	1	only physics			
DISTRICT OF COLUMBIA											
**Howard U.	C	25	30	2	0	1	0	0	-	-	0
FLORIDA											
**FL-U. of Gainesville	S	9	1 420	5	6	33	9	3	1	1	2
GEORGIA											
Agnes Scott Coll.	C	-	35	0	0	-	-	1	-	-	-
GA-U. of	C	-	120	1	0	-	-	1	-	-	-
Valdosta State Coll.	C	-	114	3	0	-	-	1	-	-	-
HAWAII											
1**Hawaii-U. of	C	30	561	-	-	23	1	-	1	1	1
ILLINOIS											
1**Chicago-U. of	S	8	200	-	-	25	4	-	4	-	1
**IL-U. of Urbana	S	208	1 453	6	7	19	3	3	2	2	1
**Northwestern U.	C	13	163	1	2	5	4	8	0	-	0
INDIANA											
**IN U. Bloomington	S	25	742	7	12	21	7	4	1	-	0
IOWA											
1**IA State U.	C	0	548	-	-	9	2	-	0	1	0
*IA-U. of	C	102	922	6	4	13	1	1	0	0	-

Institution	Type of dept.	1987 - 88 ASTRONOMY ENROLLMENTS Introductory Sci.	Introductory Nonsci.	Undergrad. Jrs.	Undergrad. Srs.	Graduate students f-t& p-t Total	Graduate students f-t& p-t 1st yr.	1986 - 87 ASTRONOMY DEGREES BS	MS	TMS	PhD
KANSAS											
KS-U. of	C	12	345	5	9	-	-	4	-	-	-
MARYLAND											
**MD-U. of	S	70	1 500	8	3	28	5	10	4	1	5
MASSACHUSETTS											
**Boston U.	S	55	425	3	10	15	6	5	0	1	1
**Harvard U.	S	25	434	6	0	20	7	1	2	-	3
**MA-U. of Five Coll.	S	107	950	9	4	32	6	8	1	0	4
Wellesley Coll.	S	-	131	5	4	-	-	4	-	-	-
Williams Coll.	C	52	51	0	2	-	-	2	-	-	-
MICHIGAN											
MI State U.	C	112	621	8	13	-	-	1	-	-	-
**MI-U. of	S	20	700	3	7	12	4	4	-	-	2
MINNESOTA											
Mankato State U.	S	-	391	2	1	-	-	1	-	-	-
**MN-U. of	S	-	1 229	12	15	15	5	5	1	1	0
NEBRASKA											
**NE-U. of Lincoln	C	14	586	1	4	2	1	0	1	1	2
NEW JERSEY											
**Princeton U.	S	-	-	6	3	17	4	3	1	1	2
NEW MEXICO											
1**NM State U.	S	-	394	-	-	15	3	-	3	1	2
NM-U. of	C	50	564	5	5	-	-	1	-	-	-
NEW YORK											
**Columbia U.	S	35	300	5	5	12	4	5	0	0	0
1**Cornell U.	S	-	450	-	-	22	4	-	1	1	5
**Rochester-U. of	C	18	64	5	7	7	2	10	-	-	1
**SUNY-Stony Brook (Earth & Space Sci.)	S	50	850	4	7	16	2	4	0	1	1
Vassar Coll.	C	4	103	2	0	-	-	2	-	-	-
OHIO											
**Case Western Reserve U.	S	10	50	1	3	3	1	3	0	0	0
Mount Union Coll.	C	-	24	1	0	-	-	0	-	-	-
**OH State U.	S	80	1 120	8	6	14	6	2	-	0	2
Youngstown State U.	C	-	400	0	2	-	-	0	-	-	-

Institution	Type of dept.	1987 - 88 ASTRONOMY ENROLLMENTS: Introductory Sci.	Introductory Nonsci.	Undergrad. Jrs.	Undergrad. Srs.	Graduate students f-t& p-t Total	Graduate students f-t& p-t 1st yr.	1986 - 87 ASTRONOMY DEGREES: BS	MS	TMS	PhD
OKLAHOMA											
**OK-U. of	C	-	841	6	8	6	4	8	0	0	0
PENNSYLVANIA											
Haverford Coll.	S	8	46	2	5	-	-	0	-	-	-
Lycoming Coll.	C	15	82	1	0	-	-	1	-	-	-
**PA State U.	S	234	2 964	7	6	18	2	5	0	3	4
**PA-U. of	S	-	210	7	4	11	2	3	-	-	1
**Pittsburgh-U. of	C	79	305	0	0	2	0	0	0	0	0
Swarthmore Coll.	C	6	90	1	2	-	-	0	-	-	-
Villanova U.	S	32	175	4	3	-	-	3	-	-	-
TENNESSEE											
*Vanderbilt U.	C	6	250	5	2	4	3	2	-	0	-
TEXAS											
1**Rice U. Space Physics	S	10	80	-	-	9	2	-	4	2	2
**TX-U. of Austin	S	175	2 647	10	18	43	13	6	0	0	1
UTAH											
1**Brigham Young U.	C	21	144	-	-	4	0	-	-	-	0
VERMONT											
Marlboro Coll.	C	-	12	0	1	-	-	1	-	-	-
VIRGINIA											
**VA-U. of	S	26	870	4	13	20	2	4	1	1	1
WASHINGTON											
**WA-U. of	S	40	479	1	2	20	8	4	0	0	3
Whitman Coll.	S	22	79	3	1	-	-	2	-	-	-
WISCONSIN											
**WI-U. of Madison	S	26	541	2	22	15	2	8	0	-	1
WYOMING											
WY-U. of	C	93	149	2	7	-	-	1	-	-	-
U.S. Total		2 415	35 754	250	285	731	171	172	38	23	72

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AIP REPORT

335 East 45th Street
New York, NY 10017-3483

EDUCATION & EMPLOYMENT
STATISTICS DIVISION

Tel. 212-661-9404

by Susanne D. Ellis
and Patrick J. Mulvey

AIP Pub. No. R-151.26a

May 1989

DATA ON PHYSICS ENROLLMENTS AND DEGREES

a SUPPLEMENT

The detailed data from the annual survey of Enrollments and Degrees are presented in this supplement. The 1987-88 physics degrees and the 1988-89 physics enrollments are listed for each of the 754 physics-degree-granting colleges and universities in the United States. Institutions are listed alphabetically by state. The data shown for each institution consist of undergraduate physics majors, full-time and part-time graduate students, first-year graduate students and physics degrees granted at all levels. All freshman and sophomore enrollments are estimated by the department chairpersons. Numbers shown in brackets are estimates based on data supplied by that institution in an earlier year.

Notations used in this supplement are:

* Institution grants master's degree as its highest physics degree. (N=89)

** Institution grants doctorate as its highest physics degree. (N=169)

1 No undergraduate degree program in physics.

Member Societies: The American Physical Society • Optical Society of America • Acoustical Society of America • The Society of Rheology • American Association of Physics Teachers American Crystallographic Association • American Astronomical Society • American Association of Physicists in Medicine • American Vacuum Society • American Geophysical Union

Institution	1988-89 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft + pt: Total	1st yr.	1987-88 PHYSICS DEGREES: Bach.	MS	TMS	PhD
ALABAMA										
**Alabama A+M U	3	2	4	3	41	3	4	2	1	0
Alabama State U	2	2	2	0			2			
**AL-U of, Birmingham	4	3	3	3	23	4	8	4	2	1
**AL-U of, Huntsville	7	10	10	5	113	19	1	5	0	2
**AL-U of, University	10	10	7	5	25	6	4	4	0	0
**Auburn U	17	14	12	18	48	6	12	1	0	2
Birmingham-Southern Coll	2	2	2	2			2			
Jacksonville St U	2	2	3	0			0			
North Alabama-U of	2	3	2	3			3			
Samford U	3	3	5	1			2			
South Alabama-U of	4	4	4	0			2			
Stillman Coll	2	0	2	4			5			
Talladega Coll	10	6	4	0			2			
Tuskegee Inst	2	3	3	2			5			
ALASKA										
**Alaska-U of	15	6	1	5	35	3	4	2	0	2
ARIZONA										
**Arizona State U	23	12	24	25	86	13	10	3	2	8
**Arizona-U of	44	37	38	29	144	27	44	4	1	5
Northern Arizona U	10	7	5	4			4			
ARKANSAS										
Arkansas St U	1	3	2	3			2			
**AR-U of, Fayetteville	14	9	7	6	36	9	2	0	1	3
AR-U of, Little Rock	4	6	3	8			4			
AR-U of, Monticello	0	1	1	1			4			
AR-U of, Pine Bluff	0	0	0	1			1			
U of Central Arkansas	12	6	6	2			1			
Harding U	5	5	4	2			2			
Henderson St U	5	6	6	1			3			
Hendrix Coll	20	11	8	9			7			
Ouachita Baptist U	2	1	2	2			2			
Southern Arkansas U	5	3	3	1			2			

Institution	1988-89 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft + pt: Total	1st yr.	1987-88 PHYSICS DEGREES: Bach.	MS	TMS	PhD
CALIFORNIA										
**Cal Inst of Tech	40	40	33	31	121	22	46	12	0	22
Cal Poly St U-San L.O.	(20)	(15)	(15)	15			(10			
Cal St U-Bakersfield	10	10	6	2			2			
Cal St U-Stanislaus	5	5	7	5			3			
Cal St Poly U-Pomona	36	24	32	41			10			
Cal St U-Chico	8	8	8	11			2			
Cal St U-Dominguez Hills	12	6	2	3			2			
*Cal St U-Fresno	9	4	8	17	14	8	8	0	3	
Cal St U-Fullerton	33	42	18	10			7			
Cal St U-Hayward	6	5	5	11			5			
*Cal St U-Long Beach	23	13	21	20	51	13	10	0	2	
*Cal St U-Los Angeles	14	11	11	12	23	8	2	0	7	
*Cal St U-Northridge	13	13	49	49	47	24	12	3	4	
Cal St U-Sacramento	7	10	12	6			10			
Cal St U-San Bernardino	20	12	12	7			2			
**CA-U of, Berkeley	90	80	59	120	282	34	89	32	0	31
**CA-U of, Davis	131	83	71	31	73	21	36	8	4	9
1**CA-U of, Davis (Applied)	-	-	-	-	61	11	-	18	2	11
**CA-U of, Irvine	60	40	80	78	77	13	40	3	6	13
**CA-U of, Los Angeles	70	50	65	55	166	29	56	30	5	31
**CA-U of, Riverside	32	32	19	13	67	13	20	8	2	6
**CA-U of, San Diego	150	87	69	60	156	44	30	27	2	10
**CA-U of, Santa Barbara	42	33	50	50	108	35	27	9	0	12
**CA-U of, Santa Cruz	30	40	60	35	36	8	36	5	0	5
Claremont, McKenna Pitzer & Scripps Colls	4	3	1	2			0			
Harvey Mudd Coll	35	35	38	28			20			
Humboldt St U	11	11	8	9			5			
La Verne-U of	1	0	0	0			0			
Loma Linda U	1	1	2	1			6			
Loyola Marymount U	1	2	3	1			2			
1**Naval Postgrad. School	-	-	-	-	87	34	-	0	45	0
Occidental Coll	35	20	15	10			13			
Pacific Union Coll	13	4	7	3			2			
*Pacific-U of	2	5	4	7	2	0	6	0	0	
Point Loma Coll	12	2	3	3			2			
Pomona Coll	30	14	10	7			5			
Redlands-U of	2	3	3	2			2			
*San Diego St U	10	10	45	35	30	14	30	0	6	
San Diego-U of	3	3	4	1			2			
*San Francisco St U	25	20	25	15	45	8	11	5	2	
San Francisco-U of	3	3	4	4			5			
*San Jose State U	31	23	42	42	57	14	32	0	3	
anta Clara-U of	8	6	7	9			7			
onoma St U	11	4	17	23			12			
outhern Cal-U of (USC)	12	12	5	2	54	14	4	6	1	8
anford U (Phys)	25	20	17	32	134	26	17	13	0	19
1 anford U (Applied)	-	-	-	-	133	25	-	17	3	23
mont Coll	15	15	6	4			6			
tier Coll	2	2	0	0			0			

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COLORADO										
Colorado Coll	0	2	10	11			5			
**Colorado School of Mines	25	20	18	23	37	8	16	0	1	0
**Colorado St U	30	17	22	31	37	12	12	6	1	7
**Colorado-U of, Boulder	73	44	57	73	143	19	42	11	7	16
Colorado-U of, Denver	10	12	9	18			4			
**Denver-U of	2	2	2	0	21	5	1	1	1	2
Fort Lewis Coll	8	7	10	5			5			
Mesa Coll	6	6	4	4			4			
Metropolitan St Coll	6	7	4	6			4			
Northern Colorado-U of	27	22	4	4			15			
Southern Colorado-U of	5	6	4	5			3			
US Air Force Academy	35	35	35	26			26			
Western St Coll	5	3	0	0			2			
CONNECTICUT										
*Bridgeport-U of	3	2	2	2	20	10	5	0	2	
Central Conn St Coll	9	2	4	5			3			
Connecticut Coll	4	3	2	3			1			
**Connecticut-U of	25	15	19	12	74	15	11	7	5	8
Fairfield U	4	3	5	6			6			
Hartford-U of	5	5	4	4			4			
New Haven-U of	(1)	(0)	(0)	(1)			(1)			
Southern Conn St U	10	5	6	5			2			
Trinity Coll	5	5	4	1			3			
**Wesleyan U	14	14	11	8	10	1	9	0	0	4
**Yale U	35	30	22	19	89	14	17	12	2	15
**Yale U (Applied)	2	2	1	1	31	5	0	1	0	4
DELAWARE										
*Delaware St Coll	14	10	8	0	9	9	4	0	0	
**Delaware-U of	10	11	11	12	40	7	15	2	2	3
DISTRICT OF COLUMBIA										
**American U	3	0	0	2	35	7	5	2	0	1
**Catholic U	6	6	4	2	61	10	4	3	1	1
Dist. of Columbia-U of	5	6	6	4			2			
Gallaudet U	2	2	1	0			0			
**George Washington U	2	2	2	3	8	4	2	0	0	1
**Georgetown U	16	12	8	10	5	0	6	1	0	3
**Howard U	15	8	6	4	12	3	1	0	0	1

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FLORIDA										
*Central Florida-U of	7	7	8	24	28	14	11	1	0	
Eckerd Coll	(3)	(2)	(2)	(1)			(1)			
Florida A&M U	(1)	(0)	(2)	(1)			(1)			
**Florida Atlantic U	4	4	4	7	14	5	4	0	1	0
*Florida Inst of Tech	26	26	19	24	17	14	13	5	3	
*Florida Intl U	4	5	3	3	8	4	5	0	1	
**Florida St U	20	15	14	19	71	19	7	2	5	9
**Florida-U of	15	20	24	23	85	17	15	0	5	4
Jacksonville U	38	39	20	11			13			
**Miami-U of	8	8	5	7	16	2	6	2	0	1
New Coll (U of South FL)	5	3	2	6			3			
Rollins Coll	4	4	1	0			3			
*South Florida-U of	7	15	8	19	21	6	18	2	4	
Stetson U	11	7	3	5			5			
West Florida-U of	5	5	3	4			7			
GEORGIA										
Agnes Scott Coll	4	4	6	1			2			
1 *Atlanta U	-	-	-	-	14	7	-	5	0	
Augusta Coll	6	3	6	1			3			
Berry Coll	3	3	6	0			1			
Clark Coll	10	8	7	5			2			
**Emory U	10	12	16	6	6	0	8	0	0	0
**Georgia Inst of Tech	30	40	50	40	101	31	50	11	13	2
Georgia Southern Coll	9	4	9	7			9			
**Georgia St U	15	15	14	5	28	8	5	3	5	0
**Georgia-U of	10	5	7	13	33	6	8	1	2	3
Mercer U	2	2	0	2			2			
Morehouse Coll	15	15	16	12			9			
North Georgia Coll	35	9	7	9			6			
Savannah State Coll	0	0	0	0			0			
Valdosta St Coll	10	6	3	4			2			
West Georgia Coll	7	5	2	2			2			
HAWAII										
Hawaii-U of, Hilo	2	4	3	0			0			
**Hawaii-U of, Honolulu	2	9	13	25	28	6	4	1	0	2
IDAHO										
Boise St U	8	8	9	8			6			
*Idaho St U	5	5	7	4	12	3	3	0	3	
**Idaho-U of	11	9	6	2	13	6	2	0	0	1
Northwest Nazarene Coll	19	8	9	4			6			

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ILLINOIS										
Augustana Coll	15	3	4	19			10			
Bradley U	8	6	6	7			6			
**Chicago-U of	60	50	22	30	136	26	0	6	2	16
*DePaul U	13	9	10	5	14	6	2	4	3	
Eastern Illinois U	6	8	6	3			7			
Elmhurst Coll	5	7	3	10			2			
Greenville Coll	5	5	4	1			1			
Illinois Benedictine Coll	3	2	2	2			1			
Illinois Coll	0	0	0	2			4			
**Illinois Inst of Tech	8	10	8	12	33	11	6	3	2	1
Illinois St U	25	20	19	8			8			
**IL-U of, Chicago	40	20	14	27	79	17	12	8	7	3
**IL-U of, Urbana/Champaign	95	60	45	38	315	50	39	35	9	36
Illinois Wesleyan U	18	22	11	6			6			
Knox Coll	5	5	6	2			5			
Lake Forest Coll	3	1	3	3			5			
Lewis U	4	6	2	5			5			
Loyola U of Chicago	22	11	8	6			12			
MacMurray Coll	0	0	0	0			2			
Millikin U	2	2	0	0			1			
Monmouth Coll	4	1	5	2			6			
North Central Coll	4	5	3	1			1			
North Park Coll	5	5	6	8			2			
*Northeastern Illinois U	(5)	(5)	(5)	(6)	15	(5)	(4)	(3)	(1)	
*Northern Illinois U	20	17	21	28	30	5	5	0	4	
**Northwestern U	8	8	5	6	82	20	17	4	0	5
Principia Coll	(4)	(5)	(5)	6			(2)			
Roosevelt U	(1)	(0)	(1)	(0)			(1)			
*Sthrn IL U-Carbondale	15	8	4	7	25	3	2	0	7	
*Sthrn IL U-Edwardsville	2	5	7	11	10	6	8	0	4	
*Western Illinois U	8	3	8	0	18	5	2	14	0	
Wheaton Coll	10	2	5	11			6			
INDIANA										
Anderson U	0	1	3	2			3			
*Ball St U	20	15	8	6	16	9	5	1	1	
Butler U	2	9	2	4			7			
DePauw U	5	8	7	6			8			
Earlham Coll	4	4	5	4			6			
Evansville-U of	5	2	5	1			3			
Franklin Coll	1	2	1	0			0			
Goshen Coll	27	6	2	4			4			
Grace Coll	2	2	2	2			2			
Hanover Coll	3	0	2	1			1			
Indpls-U of	(3)	(4)	(3)	(3)			(2)			
*Indiana St U	7	5	2	7	7	2	4	0	4	
**Indiana U-Bloomington	15	13	15	8	87	13	3	12	1	7

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INDIANA (continued)										
IN U/Purdue U-Ft Wayne	(4)	(4)	(3)	3			(2)			
*IN U/Purdue U-Indpls	4	6	7	3	7	4	1	0	1	
Indiana U-South Bend	7	5	4	4			1			
Manchester Coll	3	3	3	7			3			
**Notre Dame-U of	17	6	8	7	75	11	10	1	2	9
Purdue U-Calumet	3	3	3	2			1			
**Purdue U-West Lafayette	83	53	34	29	158	41	24	10	8	15
*Rose-Hulman Inst of Tech	40	32	15	11	15	9	8	0	3	
Taylor U	6	5	3	1			3			
Valparaiso U	12	8	6	3			3			
Wabash Coll	15	12	6	6			11			
IOWA										
Central Coll	5	4	4	2			0			
Coe Coll	4	4	2	3			2			
Cornell Coll	4	3	3	5			8			
Dordt Coll	5	5	0	0			0			
*Drake U	8	5	4	6	4	0	4	0	0	
Dubuque-U of	1	1	0	0			2			
Grinnell Coll	12	15	13	12			15			
**Iowa St U	14	12	16	20	86	26	16	0	8	12
**Iowa-U of	19	22	23	7	58	13	3	5	2	4
Loras Coll	2	2	1	2			3			
Luther Coll	10	8	5	5			13			
**Maharishi Intl U	10	8	5	2	8	0	1	0	0	0
Morningside Coll	9	4	1	3			1			
*Northern Iowa-U of	11	10	13	12	0	0	4	0	0	
St Ambrose Coll	1	1	3	2			2			
Wartburg Coll	3	0	3	2			0			
KANSAS										
Baker U	2	1	0	1			1			
Benedictine Coll	4	3	4	3			5			
Bethel Coll	9	5	5	3			6			
*Emporia St U	5	3	4	2	15	2	2	0	2	
Fort Hays St U	6	4	6	2			4			
**Kansas St U	10	14	7	12	42	11	7	3	2	1
**Kansas-U of	10	13	10	10	38	8	6	0	3	3
Kansas Wesleyan U	3	0	0	0			0			
McPherson Coll	1	0	0	0			1			
Mid-America Nazarene Coll	3	3	2	2			1			
*Pittsburg St U	3	8	4	10	9	5	3	3	1	
Southwestern Coll	3	2	1	0			0			
Washburn U	(5)	(5)	(3)	(3)			(2)			
*Wichita St U	3	3	2	3	8	3	1	2	1	

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KENTUCKY										
Berea Coll	(5)	(8)	(8)	(4)			(7)			
Centre Coll of Ky	5	5	4	6			7			
*Eastern Kentucky U	2	8	9	8	6	5	5	0	1	
Georgetown Coll	1	1	2	2			0			
**Kentucky-U of	11	10	10	14	50	18	4	0	6	6
Kentucky Wesleyan Coll	1	1	1	1			0			
*Louisville-U of	7	6	5	4	18	5	4	5	2	
Morehead St U	7	5	6	3			1			
*Murray St U	39	32	10	20	5	3	33	0	2	
Northern Kentucky U	10	10	10	3			3			
Thomas More Coll	6	10	2	6			6			
Transylvania U	4	5	4	4			5			
Union Coll	3	3	1	0			0			
Western Kentucky U	26	17	14	18			8			
LOUISIANA										
Centenary Coll	6	2	6	3			2			
Dillard U	12	8	4	3			4			
Grambling St U	13	4	3	1			4			
**LA St U-Baton Rouge	16	13	22	12	69	17	4	5	0	7
LA St U-Shreveport	10	6	5	0			4			
*Louisiana Tech U	7	5	3	3	7	3	1	0	3	
Loyola U	16	8	3	5			5			
McNeese St U	4	4	2	2			0			
*New Orleans-U of	14	5	4	4	25	4	5	4	7	
*Northeast Louisiana U	5	2	0	4	10	0	2	0	3	
Northwestern St U	3	2	0	0			0			
Southeastern Louisiana U	5	2	3	2			0			
Southern U-Baton Rouge	6	8	5	4			9			
Southern U-New Orleans	5	15	22	8			6			
*Southwestern LA-U of	8	6	3	0	2	0	1	0	0	
**Tulane U	5	6	4	4	15	5	6	0	1	1
Xavier U	0	3	0	0			4			
MAINE										
Bates Coll	12	15	3	26			16			
Bowdoin Coll	14	12	7	5			8			
Colby Coll	6	12	2	5			5			
**Maine-U of	14	12	13	11	28	10	5	0	2	4

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MARYLAND										
Columbia Union College	0	3	0	1			1			
Frostburg St Coll	45	25	15	10			10			
**Johns Hopkins U	15	9	15	10	88	12	6	17	0	8
Loyola Coll	6	5	3	6			4			
*Maryland-U of, Balt. Cnty	0	8	7	7	15	9	2	1	1	
**Maryland-U of, Coll. Park	31	35	44	81	248	40	29	9	5	17
Morgan St U	3	3	5	0			2			
Notre Dame-Coll of	5	5	2	0			1			
Salisbury State Coll	5	8	3	2			4			
Towson St U	25	25	18	16			7			
US Naval Academy	40	40	30	34			34			
Washington Coll	2	1	2	2			0			
Western Maryland Coll	5	2	4	1			1			
MASSACHUSETTS										
Amherst Coll	8	8	7	6			6			
**Boston Coll	10	10	6	5	35	6	6	2	0	4
**Boston U	25	12	12	8	100	20	5	7	1	9
**Brandeis U	12	12	12	4	52	10	10	5	0	6
Bridgewater St Coll	9	2	4	4			4			
**Clark U	5	3	4	2	16	5	4	0	0	2
Curry Coll	3	2	3	3			0			
Eastern Nazarene Coll	2	4	2	3			1			
Gordon Coll	6	4	1	4			4			
Hampshire Coll	1	1	3	0			1			
**Harvard U (w/ Radcliffe)	60	58	99	76	152	43	45	18	2	18
**Harvard U (Applied)	40	30	30	32	170	51	37	6	1	4
Holy Cross-Coll of the	5	13	10	8			13			
**Lowell-U of	20	12	2	11	133	26	15	5	13	1
**Mass Inst of Tech (MIT)	75	86	74	78	304	62	81	6	2	42
**MA-U of, Amherst	20	16	21	18	69	16	22	5	2	5
*MA-U of, Boston	18	15	11	6	15	2	6	5	0	
Mount Holyoke Coll	7	7	3	4			6			
North Adams St Coll	4	6	5	1			4			
**Northeastern U	5	5	11	2	84	23	4	8	2	6
Simmons Coll	(0)	(1)	(0)	(0)			(1)			
Smith Coll	5	12	5	8			3			
*Southeastern Mass U	4	4	3	0	18	9	0	6	0	
Suffolk U	2	1	2	2			4			
**Tufts U	7	7	6	6	55	8	7	7	1	2
Wellesley Coll	15	18	4	5			0			
Wheaton Coll	1	3	0	1			0			
Williams Coll	15	15	11	8			11			
**Worcester Polytech Inst	21	20	14	9	11	4	8	3	2	0
Worcester St Coll	(7)	(7)	(6)	(5)			(4)			

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MICHIGAN										
Adrian Coll	2	0	0	0			0			
Albion Coll	25	12	5	2			9			
Alma Coll	(5)	(5)	(6)	(5)			(4)			
*Andrews U	4	5	2	2	2	2	2	0	1	
Calvin Coll	5	5	10	4			3			
*Central Michigan U	7	6	2	5	8	3	6	0	0	
*Eastern Michigan U	9	29	19	15	40	20	14	3	3	
Grand Valley St Coll	10	5	2	0			0			
Hillsdale Coll	1	2	1	1			2			
Hope Coll	25	25	14	14			4			
Kalamazoo Coll	10	10	8	9			14			
Lawrence Inst of Tech	10	5	6	4			3			
**Michigan St U	21	11	34	11	125	38	23	7	19	9
**Michigan Technological U	16	17	10	11	25	6	11	2	6	1
**Michigan-U of, Ann Arbor	30	30	35	30	130	25	29	8	1	17
Michigan-U of, Dearborn	8	9	10	7			4			
Michigan-U of, Flint	3	3	2	3			3			
Northern Michigan U	7	4	3	4			0			
**Oakland U	15	20	6	3	10	3	3	0	1	2
Saginaw Valley St Coll	3	3	3	2			1			
**Wayne St U	13	11	13	19	57	14	10	5	1	5
*Western Michigan U	10	7	7	5	13	6	6	3	4	
MINNESOTA										
Augsburg Coll	5	4	4	3			3			
Bemidji St U	8	12	7	6			9			
Bethel Coll	5	5	4	3			5			
Carleton Coll	20	20	20	28			13			
Concordia Coll	10	10	8	4			9			
Gustavus Adolphus Coll	40	24	16	14			14			
Hamline U	25	18	12	8			8			
Macalester Coll	19	20	6	10			5			
*Mankato St U	5	5	10	4	15	8	1	0	1	
*Minnesota-U of, Duluth	3	12	6	3	8	4	0	0	0	
**Minnesota-U of, Mpls.	34	37	37	46	151	36	27	2	9	10
Minnesota-U of, Morris	6	4	3	5			1			
Moorhead St U	2	1	2	2			1			
St Catherine-Coll of	1	2	1	1			0			
St Cloud St U	15	15	10	10			6			
St Johns U	40	20	9	6			8			
St Marys Coll	10	6	4	2			0			
St Olaf Coll	60	25	13	14			26			
St Thomas-Coll of	6	2	3	0			4			
Southwest St U	3	3	2	0			2			
Winona St U	10	15	8	15			5			

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MISSISSIPPI										
Jackson St U	1	2	1	0			0			
Millsaps Coll	3	3	5	2			3			
Mississippi Coll	(2)	(2)	(2)	(3)			(1)			
*Mississippi St U	10	5	2	5	8	5	6	0	1	
**Mississippi-U of	5	8	5	6	27	6	2	2	1	4
*Sthrn Mississippi-U of	11	4	3	8	12	3	2	2	1	
Tougaloo Coll	(6)	(5)	(5)	(3)			(3)			
MISSOURI										
Central Missouri St U	3	4	3	3			4			
Drury Coll	3	2	0	0			0			
Missouri Southern St Coll	2	2	1	2			0			
**MO-U of, Columbia	15	15	15	10	36	7	5	0	0	4
*MO-U of, Kansas City	6	5	5	4	20	11	3	0	3	
**MO-U of, Rolla	13	10	8	15	33	8	10	2	0	1
**MO-U of, St Louis	5	7	8	5	10	5	8	3	0	0
Northeast Missouri St U	13	10	6	2			6			
Northwest Missouri St U	1	2	3	2			0			
Rockhurst Coll	2	2	1	1			1			
St Louis U	4	5	3	1			0			
Southeast Missouri St U	10	9	8	6			5			
Southwest Missouri St U	17	24	13	19			6			
**Washington U	11	20	20	19	64	14	18	11	0	9
Westminster Coll	3	1	1	0			0			
William Jewell Coll	10	8	3	3			3			
William Woods Coll	(0)	(0)	(0)	(0)			(0)			
MONTANA										
**Montana St U	20	15	17	20	52	15	9	4	6	3
*Montana-U of	5	3	4	3	1	0	3	0	0	
NEBRASKA										
Chadron St Coll	(3)	(2)	(2)	(2)			(3)			
*Creighton U	4	4	4	4	12	1	6	3	2	
Hastings Coll	8	10	5	4			4			
Kearney St Coll	(15)	(15)	(12)	13			(10)			
**Nebraska-U of, Lincoln	13	14	16	14	44	12	15	7	4	5
Nebraska-U of, Omaha	10	10	8	6			5			
Nebraska Wesleyan U	8	7	5	2			2			
Union Coll	0	1	1	2			0			
NEVADA										
*Nevada-U of, Las Vegas	14	11	4	5	7	2	4	0	0	
**Nevada-U of, Reno	7	6	4	6	34	4	3	1	2	3

Institution	1988-89 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft + pt: Total	1st yr.	1987-88 PHYSICS DEGREES: Bach.	MS	TMS	PhD
NEW HAMPSHIRE										
**Dartmouth Coll	15	15	8	13	27	8	14	1	0	2
**New Hampshire-U of	18	10	10	11	34	11	13	1	1	1
NEW JERSEY										
Drew U	3	2	4	3			1			
Fairleigh Dickinson University-Madison	(0)	(1)	(0)	(0)			(0)			
*Fairleigh Dickinson University-Teaneck	0	0	3	0	7	2	2	0	3	
Georgian Court Coll	1	2	3	3			3			
Monmouth Coll	1	0	4	0			0			
Montclair St Coll	2	2	3	2			2			
**Princeton U	50	60	21	27	101	25	25	0	0	15
Rider Coll	2	1	0	1			1			
**Rutgers U-Busch	31	32	22	23	101	14	17	2	2	9
Rutgers U-Camden	40	30	16	6			13			
Rutgers U-Newark	2	2	6	7			3			
St Peters Coll	1	1	2	1			1			
Seton Hall U	11	4	4	1			1			
**Stevens Inst of Tech	5	4	6	5	75	6	8	6	11	2
Stockton St Coll	12	12	6	8			6			
Trenton St Coll	3	4	4	4			3			
NEW MEXICO										
Eastern New Mexico U	0	3	2	1			5			
**NM Inst of Mining & Tech	50	32	22	28	21	4	11	4	0	4
**New Mexico St U	5	13	14	18	36	6	6	1	2	2
**New Mexico-U of	15	15	20	8	114	18	3	6	0	9
NEW YORK										
**Adelphi U	10	3	8	3	13	4	2	5	0	0
Alfred U	2	2	0	1			1			
Bard Coll	2	4	4	1			2			
Barnard Coll	(2)	(2)	(2)	(1)			(2)			
**Brooklyn Coll (CUNY)	5	5	4	1	32	7	1	2	0	5
CW Post Coll	3	3	1	3			1			
Canisius Coll	6	4	2	0			1			
**City Coll (CUNY)	10	10	8	5	85	15	8	0	1	6
**Clarkson U	12	6	8	9	23	4	8	0	1	2
Colgate U	10	8	8	6			9			
**Columbia U	25	20	17	17	107	20	8	16	0	14
**Cornell U (Phys)	30	30	33	45	202	48	52	31	2	28
**Cornell U (Appl Phys)	-	-	36	35	87	14	34	12	0	7
Fordham U	11	10	6	3			2			
Hamilton Coll	10	8	6	6			9			

Institution	1988-89 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft + pt: Total	1st yr.	1987-88 PHYSICS DEGREES: Bach.	MS	TMS	PhD
NEW YORK (continued)										
Hartwick Coll	2	3	3	1			3			
Herbert Lehman Coll (CUNY)	1	1	1	0			0			
Hobart & Wm Smith Coll	4	3	1	3			1			
Hofstra U	4	3	2	2			2			
Houghton Coll	3	3	4	3			3			
**Hunter Coll (CUNY)	12	11	9	5	23	8	4	0	2	1
Iona Coll	3	0	0	0			1			
Ithaca Coll	14	13	7	6			8			
Le Moyne Coll	6	2	5	3			0			
Manhattan Coll	5	3	1	5			1			
Manhattanville Coll	(1)	(0)	(0)	(0)			(1)			
New York Inst of Tech	20	10	4	7			5			
**New York U (NYU)	10	10	15	10	84	15	3	2	10	8
**Polytechnic Inst of NY	4	2	3	3	33	6	2	2	6	2
**Queens Coll (CUNY)	2	3	2	4	22	3	0	1	2	1
**Rensselaer Polytech Inst	80	53	33	51	89	21	51	17	14	7
Roberts Wesleyan Coll	3	2	1	1			1			
Rochester Inst of Tech	32	14	9	9			8			
**Rochester-U of	25	15	10	17	99	20	8	19	1	16
1**Rockefeller U	-	-	-	-	6	1	-	-	-	3
*St Bonaventure U	2	2	3	2	6	2	3	1	1	
St John Fisher Coll	2	3	1	3			0			
St Johns U	2	1	1	4			0			
St Lawrence U	5	2	6	1			5			
Siena Coll	10	8	4	4			8			
**SUNY-Albany	15	20	18	22	80	22	19	7	12	3
*SUNY-Binghamton	60	40	14	26	20	11	22	1	2	
**SUNY-Buffalo	10	10	4	8	84	37	11	2	8	6
**SUNY-Stony Brook	25	25	26	20	175	44	27	12	9	24
SUNY Coll-Brockport	20	15	12	1			3			
SUNY Coll-Buffalo	18	13	12	9			9			
SUNY Coll-Cortland	(20)	(15)	(10)	(8)			(2)			
SUNY Coll-Fredonia	5	19	28	17			21			
SUNY Coll-Geneseo	65	25	25	10			13			
*SUNY Coll-New Paltz	5	7	8	7	8	3	7	0	2	
SUNY Coll-Oneonta	15	6	8	7			11			
SUNY Coll-Oswego	25	15	9	13			10			
SUNY Coll-Plattsburgh	20	16	10	5			5			
SUNY Coll-Potsdam	40	40	24	19			23			
SUNY Coll-Purchase	3	1	0	0			1			
Staten Island-Coll of	3	2	2	0			0			
**Syracuse U	10	10	4	5	41	17	5	11	2	6
Union Coll	6	7	7	5			4			
US Military Academy	0	25	23	20			23			
Utica Coll	4	3	3	2			3			
Vassar Coll	10	10	4	3			3			
Wagner Coll	2	2	2	5			2			
Yeshiva U	3	3	3	2			3			
York Coll (CUNY)	20	10	4	1			0			

Institution	1988-89 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft + pt: Total	1st yr.	1987-88 PHYSICS DEGREES: Bach.	MS	TMS	PhD
NORTH CAROLINA										
*Appalachian St U	12	20	18	12	4	4	10	0	0	
Davidson Coll	10	5	4	5			9			
**Duke U	29	22	13	13	65	13	13	0	1	7
*East Carolina U	38	14	11	9	7	2	4	0	0	
Elizabeth City St U	2	1	2	2			1			
Elon Coll	2	1	0	0			0			
Guilford Coll	12	7	10	11			10			
Lenoir-Rhyne Coll	(2)	(2)	(3)	(4)			(5)			
North Carolina A&T St U	0	0	4	2			2			
North Carolina Central U	9	16	2	2			3			
**North Carolina St U	68	35	33	32	77	19	16	1	2	4
NC-U of, Asheville	2	2	5	2			1			
**NC-U of, Chapel Hill	32	26	20	25	65	13	13	3	3	2
NC-U of, Charlotte	12	9	10	4			5			
*NC-U of, Greensboro	10	6	5	5	18	4	3	0	3	
NC-U of, Wilmington	4	3	8	3			4			
Pfeiffer Coll	0	0	0	0			1			
*Wake Forest U	30	30	14	8	11	5	9	5	0	
Western Carolina U	3	3	3	2			2			
NORTH DAKOTA										
Minot St Coll	2	1	0	1			1			
**North Dakota St U	4	4	3	4	11	4	2	2	0	3
**North Dakota-U of	6	8	6	12	9	1	1	2	0	0
OHIO										
1**Air Force Inst of Tech	-	-	-	-	34	14	-	1	12	4
*Akron-U of	10	10	13	8	28	13	7	6	1	
Antioch Coll	3	2	2	1			0			
Baldwin-Wallace Coll	2	2	1	1			2			
Bluffton Col	0	0	0	0			2			
*Bowling Green St U	4	8	12	12	21	15	4	3	2	
**Case Western Reserve U	26	22	9	14	42	13	18	3	1	6
**Cincinnati-U of	16	9	10	12	65	17	7	5	2	11
*Cleveland St U	10	10	9	9	12	3	7	0	2	
Dayton-U of	4	6	3	3			5			
Denison U	8	3	3	5			4			
Heidelberg Coll	2	2	2	0			0			
Hiram Coll	0	0	3	1			0			
*John Carroll U	17	10	10	11	8	5	9	1	5	
**Kent St U	16	15	14	17	67	14	13	6	2	6
Kenyon Coll	6	11	8	7			9			
Marietta Coll	1	0	0	0			0			

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OHIO (continued)										
*Miami U	29	41	22	21	18	7	18	3	4	
Mount Union Coll	6	2	2	2			2			
Oberlin Coll	15	12	5	12			13			
Ohio Northern U	0	1	0	1			0			
**Ohio St U	30	28	30	33	146	32	21	9	4	21
**Ohio U	15	12	7	4	48	13	6	3	5	3
Ohio Wesleyan U	5	5	4	4			2			
Otterbein Coll	1	2	3	0			3			
**Toledo-U of	26	15	12	9	29	6	1	1	3	0
Wittenberg U	8	6	2	2			8			
Wooster-U of	8	6	5	3			5			
*Wright St U	15	10	7	7	22	6	5	0	5	
Xavier U	9	8	9	9			10			
Youngstown St U	10	7	4	2			0			
OKLAHOMA										
Cameron U	3	4	7	4			0			
*Central St U	10	8	24	25	21	6	11	1	7	
East Central OK St U	4	3	5	3			3			
Northeastern OK St U	5	7	4	7			3			
Oklahoma Baptist U	(3)	(4)	(2)	(0)			(0)			
Oklahoma City U	2	2	8	1			1			
**Oklahoma St U	8	12	10	5	45	8	5	4	0	7
**Oklahoma-U of	20	16	20	25	44	5	19	7	4	3
OK-U of Sci and Arts	(2)	(1)	(1)	(0)			(0)			
Oral Roberts U	2	3	2	1			1			
Phillips U	0	0	0	0			1			
Southeastern OK State	2	2	4	3			3			
Southern Nazarene U	4	0	6	1			2			
Southwestern OK State	30	10	13	11			7			
Tulsa-U of	3	4	4	4			5			
OREGON										
Eastern Oregon State Coll	4	5	3	5			2			
Lewis & Clark Coll	14	12	3	3			3			
Linfield Coll	7	5	2	3			3			
1**Oregon Graduate Center	-	-	-	-	41	9	-	0	2	3
**Oregon St U	16	14	12	10	55	17	19	8	1	2
**Oregon-U of	34	18	14	13	153	49	17	18	4	9
Pacific U	1	3	2	1			6			
**Portland St U	9	8	8	7	16	10	4	0	0	1
Portland-U of	4	4	3	2			1			
Reed Coll	30	25	25	16			13			
Southern Oregon St U	4	4	5	3			1			
Willamette U	10	10	6	5			9			

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PENNSYLVANIA										
Albright Coll	6	3	6	4			3			
Allegheny Coll	10	10	10	11			4			
Bloomsburg St Coll	11	8	10	6			4			
**Bryn Mawr Coll	7	7	9	6	8	0	5	1	0	2
Bucknell U	6	4	8	5			3			
California St U of Pa	6	6	4	5			4			
**Carnegie Mellon U	40	40	33	25	68	13	19	9	4	9
Clarion St Coll	6	6	4	5			9			
Dickinson Coll	10	8	7	9			7			
**Drexel U	12	10	10	11	48	13	8	3	0	5
Duquense U	3	2	1	3			5			
East Stroudsburg St Coll	10	10	4	2			1			
Edinboro U	5	5	6	3			6			
Elizabethtown Coll	2	0	0	0			0			
Franklin & Marshall Coll	12	9	9	13			11			
Gannon U	2	1	1	0			2			
Geneva Coll	3	1	2	0			0			
Gettysburg Coll	8	2	4	5			4			
Grove City Coll	3	4	8	0			8			
Haverford Coll	15	15	6	10			4			
*Indiana U of Pa	13	7	19	20	16	9	7	4	0	
Juniata Coll	3	2	1	1			3			
Kings Coll	2	1	1	0			1			
Kutztown St Coll	3	10	10	6			3			
Lafayette Coll	3	2	3	5			7			
La Salle Coll	(4)	(4)	(2)	(2)			(0)			
Lebanon Valley Coll	(8)	(6)	(4)	(3)			(1)			
**Lehigh U	10	10	7	5	51	8	4	9	4	4
Lincoln U	5	10	8	6			5			
Lock Haven St Coll	6	2	4	0			2			
Lycoming Coll	5	5	6	0			7			
Mansfield U	10	10	6	3			4			
Millersville U	49	13	10	13			15			
Moravian Coll	12	6	5	3			5			
Muhlenberg Coll	6	5	7	3			4			
**Pennsylvania St U	30	30	32	26	103	32	20	0	5	6
**Pennsylvania-U of	10	8	6	10	106	34	9	0	0	13
**Pittsburgh-U of	15	15	10	10	89	16	13	6	5	12
St Josephs U	3	2	1	3			3			
St Vincent Coll	(4)	(4)	(3)	3			(4)			
*Scranton-U of	5	3	2	2	0	0	2	0	1	
Shippensburg U	2	1	4	1			5			
Slippery Rock U	(12)	(10)	(10)	(6)			(4)			
Susquehanna U	3	7	5	6			2			
Swarthmore Coll	25	25	11	9			7			
**Temple U	20	20	6	10	39	3	4	5	1	4
Thiel Coll	2	1	1	2			1			
Ursinus Coll	3	3	5	6			3			
Villanova U	13	4	6	1			2			
Wash. & Jefferson Coll	4	4	3	0			2			

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PENNSYLVANIA (continued)										
West Chester U	18	15	18	12			7			
Westminster Coll	10	3	3	3			3			
Widener U	1	1	0	3			3			
*Wilkes Coll	6	3	3	3	4	3	2	0	1	
RHODE ISLAND										
**Brown U	(20)	(15)	8	14	103	21	10	22	3	10
Providence Coll	4	4	4	7			5			
**Rhode Island-U of	12	5	5	3	23	6	3	1	0	4
SOUTH CAROLINA										
Baptist Coll @ Charleston	0	0	0	0			0			
Benedict Coll	(8)	(6)	(6)	7			(4)			
Bob Jones U	25	11	4	3			5			
Charleston-Coll of	8	3	4	8			4			
Citadel, The	7	5	4	4			2			
**Clemson U	8	6	6	5	35	10	5	1	3	4
Erskine Coll	5	5	4	0			1			
Furman U	7	5	3	2			1			
Presbyterian Coll	5	8	3	1			2			
**South Carolina-U of	17	10	8	6	33	6	5	0	2	7
Wofford Coll	(4)	(2)	(3)	(5)			(4)			
SOUTH DAKOTA										
Augustana Coll	5	5	5	3			5			
Dakota State Coll	2	2	3	2			0			
*SD Sch. of Mines & Tech	12	10	9	6	14	7	3	4	0	
*South Dakota St U	8	10	8	10	7	2	5	0	0	
South Dakota-U of	6	3	12	2			4			
TENNESSEE										
Austin Peay St U	4	2	4	1			2			
Belmont Coll	5	5	3	2			3			
Carson-Newman Coll	2	2	4	0			3			
Christian Brothers Coll	2	2	2	3			3			
David Lipscomb Coll	3	3	0	1			2			
East Tennessee St U	3	5	6	2			1			
*Fisk U	5	9	6	0	6	2	7	3	0	
King Coll	4	5	3	3			3			
*Memphis St U	10	10	8	3	16	6	5	1	4	

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TENNESSEE (continued)										
Middle Tennessee St U	4	3	4	5			3			
South-U of the	5	5	4	8			4			
Southern Coll	1	7	3	2			1			
Rhodes Col (SW @ Memp.)	6	2	2	2			5			
Tennessee St U	3	2	1	2			1			
Tennessee Tech U	8	5	4	3			0			
TN-U of Chattanooga	12	12	13	7			9			
**TN-U of Knoxville	17	7	8	14	77	14	4	4	5	8
1**TN-U of Space Inst	-	-	-	-	17	5	-	0	0	0
**Vanderbilt U	1	6	9	9	49	7	10	4	0	5
TEXAS										
Abilene Christian U	22	14	12	8			4			
Angelo St U	27	12	8	13			9			
Austin Coll	8	6	3	2			1			
**Baylor U	10	7	5	3	21	5	3	1	2	1
Dallas Baptist U	0	0	0	0			0			
Dallas-U of	10	6	2	8			4			
*East Texas St U	(10)	(8)	(10)	7	14	(5)	(5)	(1)	(3)	
Hardin-Simmons U	2	2	2	1			2			
Houston Baptist U	(4)	(3)	(3)	(4)			(2)			
**Houston-U of	27	20	18	15	71	10	8	2	0	4
Lamar U	9	4	1	6			6			
McMurry Coll	2	0	1	1			2			
**North Texas-U of	15	10	15	28	63	8	15	20	0	6
Pan American U	5	5	2	7			0			
Prairie View A&M U	(0)	(1)	(0)	(0)			(0)			
**Rice U	30	25	22	9	57	13	21	8	0	4
St Marys U	1	0	0	0			0			
*Sam Houston St U	15	15	7	10	14	5	6	0	1	
Southern Methodist U	5	7	3	1			2			
*Southwest Texas St U	35	11	10	14	10	4	10	0	0	
Southwestern U	6	4	3	1			0			
*Stephen F Austin St U	11	13	7	2	13	0	4	0	3	
Tarleton St U	3	3	3	3			2			
Texas A&I U	9	0	2	8			3			
**Texas A&M U	39	31	30	29	144	33	20	3	22	4
**Texas Christian U	8	5	6	4	15	1	1	0	1	2
Texas Southern U	6	6	10	5			3			
**Texas Tech U	18	5	0	3	43	6	6	4	4	5
**Texas-U of, Arlington	43	5	9	22	42	9	4	1	1	3
**Texas-U of, Austin	62	33	51	61	309	62	30	2	7	29
**Texas-U of, Dallas	0	0	27	13	91	27	10	6	2	6
*Texas-U of, El Paso	10	20	15	8	12	6	2	5	0	
Texas-U of, San Antonio	11	2	4	9			6			
Trinity U	6	6	7	5			5			
West Texas St U	2	3	7	6			0			

Institution	1988-89 PHYSICS ENROLLMENTS: Undergraduate physics majors: Fresh-men	Sopho-mores	Jr's	Sr's	Graduate students ft + pt: Total	1st yr.	1987-88 PHYSICS DEGREES: Bach.	MS	TMS	PhD
UTAH										
**Brigham Young U	60	40	40	32	34	5	21	0	6	2
**Utah St U	15	4	6	14	40	10	10	0	2	4
**Utah-U of	33	19	26	65	120	30	35	2	11	4
Weber St Coll	20	16	12	5			6			
Westminster Coll	10	5	6	2			3			
VERMONT										
Marlboro Coll	3	2	0	0			1			
Middlebury Coll	10	20	8	13			10			
Norwich U	4	2	2	1			2			
St Michael Coll	4	0	0	1			0			
*Vermont-U of	17	10	1	7	10	3	5	0	0	
VIRGINIA										
Bridgewater Coll	5	5	2	2			0			
Christopher Newport Coll	15	15	10	5			3			
Emory & Henry Coll	1	0	2	0			4			
*George Mason U	15	15	12	9	25	12	12	0	4	
Hampden-Sydney Coll	15	12	6	7			4			
*Hampton University	25	16	5	1	18	6	5	0	8	
Hollins Coll	(1)	(1)	(1)	(0)			(0)			
James Madison U	13	18	11	5			4			
Longwood Coll	29	21	13	10			9			
*Lynchburg Coll	9	3	8	5	2	0	4	0	1	
Mary Washington Coll	15	20	6	14			12			
Norfolk St U	(4)	(4)	(2)	(3)			(4)			
**Old Dominion U	10	15	15	7	25	10	12	1	1	1
Randolph-Macon Coll	3	5	2	2			1			
Randolph-Macon Womans Co	1	1	3	0			0			
Richmond-U of	5	5	2	6			4			
Roanoke Coll	10	5	3	4			1			
Sweet Briar Coll	4	4	2	1			1			
*Virginia Commonwealth U	12	12	5	8	10	2	6	0	1	
Virginia Military Inst	3	7	5	5			4			
**Virginia Polytech Inst	53	34	43	10	53	17	16	3	4	8
*Virginia St U	9	4	4	1	6	1	2	0	2	
**Virginia-U of	60	40	18	20	81	15	19	2	3	11
Washington & Lee U	6	4	5	2			11			
**Coll of William & Mary	25	25	18	16	50	13	11	6	2	5

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WASHINGTON										
Central Washington U	3	3	8	6			7			
Eastern Washington U	10	5	4	13			4			
Gonzaga U	3	3	4	2			0			
Pacific Lutheran U	25	25	18	15			23			
Puget Sound-U of	16	18	13	8			14			
Seattle Pacific U	2	3	2	2			3			
Seattle U	2	4	2	3			5			
Walla Walla Coll	0	4	4	2			2			
**Washington St U	15	15	8	9	40	15	8	2	0	1
**Washington-U of	11	20	20	19	64	14	18	11	0	9
Western Washington U	40	30	13	10			12			
Whitman Coll	39	31	15	12			13			
Whitworth Coll	3	3	2	4			4			
WEST VIRGINIA										
Bethany Coll	4	3	3	3			1			
*Marshall U	6	5	5	2	2	1	3	0	2	
W. Virginia Inst of Tech	1	3	3	1			2			
**West Virginia U	7	11	6	2	21	5	8	1	4	5
W. Virginia Weslayan Col	20	10	12	10			9			
Wheeling Coll	0	1	4	3			2			
WISCONSIN										
Beloit Coll	5	5	10	3			3			
Carroll Coll	10	10	6	3			4			
Carthage Coll	0	0	0	0			0			
Lawrence U	20	20	5	5			4			
*Marquette U	5	1	2	4	14	6	4	4	2	
Ripon Coll	7	6	6	2			3			
St. Norbert Coll	5	8	4	0			2			
WI-U of, Eau Claire	25	14	19	7			7			
WI-U of, Green Bay	2	2	1	4			0			
WI-U of, La Crosse	4	5	1	0			2			
**WI-U of, Madison	10	30	76	29	186	32	53	8	13	22
**WI-U of, Milwaukee	6	6	5	19	38	8	9	5	6	3
*WI-U of, Oshkosh	3	5	6	3	17	1	5	0	1	
WI-U of, Parkside	10	10	5	3			2			
WI-U of, Platteville	3	2	3	2			2			
WI-U of, River Falls	21	9	17	10			15			
WI-U of, Stevens Point	4	3	9	4			1			
WI-U of, Superior	(4)	(3)	(1)	(5)			(2)			
WI-U of, Whitewater	2	7	3	5			12			
WYOMING										
**Wyoming-U of	16	9	6	2	28	2	6	0	1	5

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AMERICAN INSTITUTE OF PHYSICS

AIP REPORT

335 East 45th Street
New York, NY 10017-3483

EDUCATION & EMPLOYMENT
STATISTICS DIVISION

Tel. 212-661-940

by Susanne D. Ellis
and Patrick J. Mulvey

AIP Pub. No. R-151.26

July 1989

ENROLLMENTS AND DEGREES

As the academic physics community strains to find ways to attract a greater number of U.S. citizens into the physics pipeline, our Institute's annual surveys have served as important evaluations of how successful these efforts are. The oldest annual survey, focusing on enrollments and degrees, offers significant trend data to academic planners and advisers because it dates back to 1960. Several other surveys concentrate on detailed characteristics of physics and astronomy students. This summary report of the survey of Enrollments and Degrees analyzes the 1987–88 degrees as well as the 1988–89 enrollments; to call attention to recent changes it includes five-year or ten-year trends.

Shortly after the beginning of each academic year a combined total of 800 degree-granting physics and astronomy departments in the U.S. are asked to report the number of degrees they conferred during the past academic year and the size and composition of their current undergraduate and graduate enrollments. In the fall of 1988 there were 759 physics departments to be contacted; they included five universities with applied physics departments in addition to their regular physics departments. **Table I** identifies the five institutions in its footnote and classifies all institutions according to the highest physics degree granted. Each year interchanges take place among the three types of institutions whereby existing degree programs may either be expanded to include a higher degree, or the currently-offered degree program may be discontinued if too few students express an interest in it. Data collected from the 65 astronomy departments are summarized in the last two tables of this report.

Table I. Institutions by highest physics degree offered, 1984–1989.

Academic year	Doctoral granting*	Master's granting	Bachelor's granting
1984–85	168	90	487
1985–86	168	91	485
1986–87	168	90	496
1987–88	169	90	498
1988–89	169	89	496

*Five of these institutions have two physics doctorate-granting departments. They are Stanford U., U. of CA-Davis, Yale U., Harvard U. and Cornell U.

The physics degree production, presented in two parts of **Figure I**, displays two distinct trends: a leveling trend for the bachelor's degrees at around 5200 per year, and noteworthy increases for three types of graduate degrees. Three different graduate degrees are identified because we distinguish between terminal master's degrees and those granted enroute to higher physics degrees. The largest increase over the previous year (from 623 to 698) was recorded by terminal masters.

Figure I. Physics degrees awarded by academic year, 1977–1988.

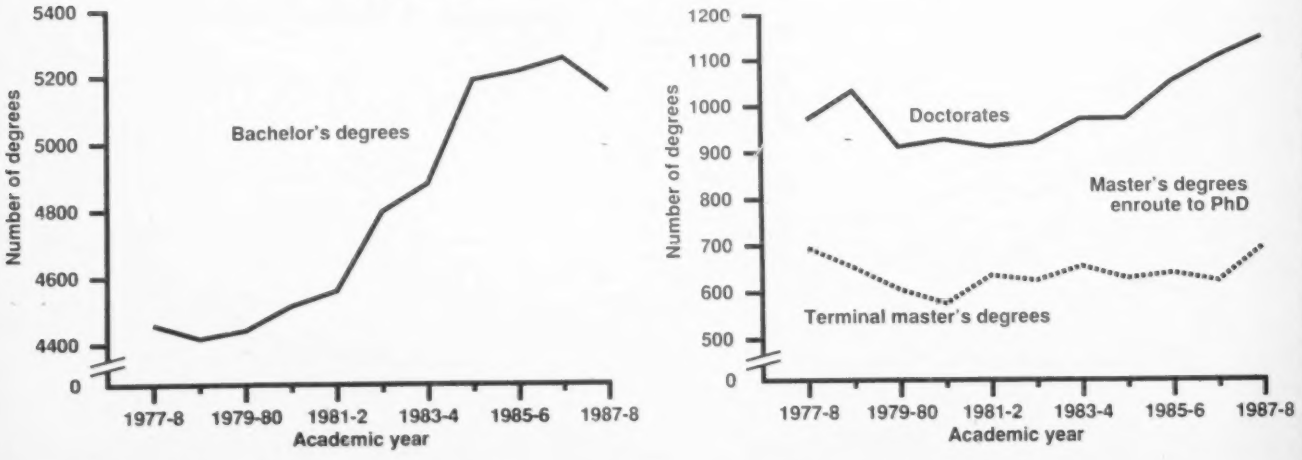

Table II. Physics enrollments and degrees awarded by academic year, 1977–1989.

Academic year	Number of physics degrees granted (July 1 to June 30)			Undergraduate physics major enrollments		Graduate physics student enrollments*	
	Bachelor's	Master's	Doctor's	Juniors	Seniors	Total	1st year
1977–78	4457	1422	971	5820	4975†	9 835	2499
1978–79	4416	1428	1033	5835	4964	9 813	2458
1979–80	4440	1370	912	5696	4942	9 647	2439
1980–81	4513	1387	927	5905	5091	9 934	2564
1981–82	4558	1476	912	6386	5372	10 173	2637
1982–83	4795	1426	921	6299	5580	10 429	2630
1983–84	4878	1521	971	6303	5658	10 922	2855
1984–85	5188	1518	972	6601	6009	11 337	2863
1985–86	5214	1589	1051	6689	6092	12 011	2981
1986–87	5253	1596	1105	6592	6119	12 616	3162
1987–88	5152	1733	1150	6412	5959	13 143	3274
1988–89				6390	5914	13 361	3132

**Includes part-time students.*
†This total has been adjusted by 300 students who were seniors for more than one year.

Table III. Undergraduate and graduate enrollments and degrees by institution type, 1977–1989.

Academic year	Number of physics degrees granted (July 1 to June 30)			Undergraduate physics-major enrollments		Graduate physics student enrollments*	
	Bachelor's	Master's	Doctor's	Juniors	Seniors	Total	1st year
				Doctorate granting institutions			
1977–78	2218	1164	971	2851	2590	8 852	2138
1978–79	2158	1183	1033	2937	2579	8 864	2107
1979–80	2142	1151	912	2696	2491	8 744	2072
1980–81	2123	1161	927	2765	2568	9 062	2223
1981–82	2179	1281	912	2996	2671	9 273	2275
1982–83	2192	1210	921	2962	2645	9 524	2288
1983–84	2195	1319	971	2955	2824	10 006	2495
1984–85	2460	1286	972	3059	3105	10 357	2443
1985–86	2377	1358	1051	3120	2961	10 937	2574
1986–87	2473	1357	1105	3132	3148	11 389	2667
1987–88	2460	1432	1150	3030	2991	11 880	2737
1988–89				3018	2972	12 069	2638
				Master's granting institutions			
1977–78	590	258		832	752	983	361
1978–79	541	245		795	694	949	351
1979–80	585	219		705	650	903	367
1980–81	589	226		868	655	872	341
1981–82	532	195		917	734	900	362
1982–83	554	216		877	752	905	342
1983–84	610	202		830	722	916	360
1984–85	658	232		974	781	980	420
1985–86	632	231		1014	865	1 074	407
1986–87	660	239		913	791	1 227	495
1987–88	591	301		871	750	1 263	537
1988–89				822	795	1 292	494
				Bachelor's granting institutions			
1977–78	1649			2137	1633		
1978–79	1717			2103	1691		
1979–80	1713			2295	1801		
1980–81	1801			2272	1868		
1981–82	1847			2473	1967		
1982–83	2049			2460	2183		
1983–84	2073			2518	2112		
1984–85	2070			2568	2123		
1985–86	2205			2555	2266		
1986–87	2120			2547	2180		
1987–88	2101			2511	2218		
1988–89				2550	2147		

**Includes part-time students.*

Table IV. Number of students enrolling in their first college/university physics course in 1988–89.

Discipline of potential majors	Institution type: Bachelor's granting N		Master's granting N		Doctorate granting N		Total N		N
Type of course	Calculus-based	Algebra-based	Calculus-based	Algebra-based	Calculus-based	Algebra-based	Calculus-based	Algebra-based	Total intro.
Engineering majors	16 800	4 700	12 700	2 000	52 300	12 000	81 800	18 700	100 500
Physical sciences majors*	11 600	3 400	5 400	900	21 000	5 000	38 200	9 300	47 500
Biology, health-related majors	3 500	16 000	800	10 100	10 000	30 000	14 300	56 100	70 400
Other, incl. not yet declared	3 000	22 400	600	13 000	3 100	44 300	6 700	79 700	86 400
	34 900	46 500	19 500	26 000	86 600	91 300	141 000	163 800	
Total introductory enrollment N	81 400		45 500		177 900				304 800
%	26.7		14.9		58.4				100%

**Includes physics, chemistry, mathematics, etc.*
Note: The format of the question asking for introductory enrollments has been changed so as to include single-semester algebra-based courses, not reported on in earlier years.

The numerical data for **Figure I** are presented as part of **Table II** which also includes undergraduate and graduate physics enrollments. Although curricula differ widely among the 750 undergraduate physics programs, the great majority of schools expect their students to have accumulated the necessary prerequisites at the beginning of the junior year to declare their majors. Thus, examining the numbers of juniors in **Table II** over a ten-year period, what had been described as "fluctuations" in earlier reports, may need to be re-evaluated as a declining trend that began in 1985. The total graduate enrollment, on the other hand, continues to increase for the ninth consecutive year.

Table III is an expanded version of **Table II**; it divides each enrollment and degree total into two or three parts according to the types of institutions associated with those enrollments and degrees. Thus shifts, among the types of institutions, in enrollments or degree production can readily be identified. For example, the recent increase in master's degrees occurred at both types of graduate institutions, whereas the decline in junior physics majors can be traced primarily to the master's institutions.

Introductory physics enrollment

As greater emphasis is placed on scientific literacy, the enrollment in introductory physics courses can be expected to increase. In order to attract a more diversified group of students most of the physics departments offer both algebra-based and calculus-based courses. The potential major is usually the deciding factor in which course to enroll. For example, only one in five potential engineering majors enrolled in an algebra-based course; for the biology or health-related majors the reverse was true: only one in five students had the necessary prerequisites to take a calculus-based course. **Table IV** presents the distribution of 300,000 students who enrolled in their first college/university physics course in 1988–89. When dividing the collective introductory enrollment by type of institution, we find that at the PhD-granting institutions an almost even split exists between the calculus-based and the algebra-based enrollment. For non-doctoral departments the introductory enrollment ratio is 43% calculus-based versus 57% algebra-based.

Undergraduate physics majors

Unless one can point to a strong mathematics background, the decision to major in physics needs to be made close to the freshman year because of the large number of required courses in both physics and mathematics. Thus chairpersons, who monitor the enrollments in lower level physics courses, can provide fairly reliable estimates of their prospective physics majors at the freshman and sophomore levels. **Figure II** combines these estimates with the number of students who have formally declared a physics major at

Figure II. Actual and projected number of undergraduate physics majors.

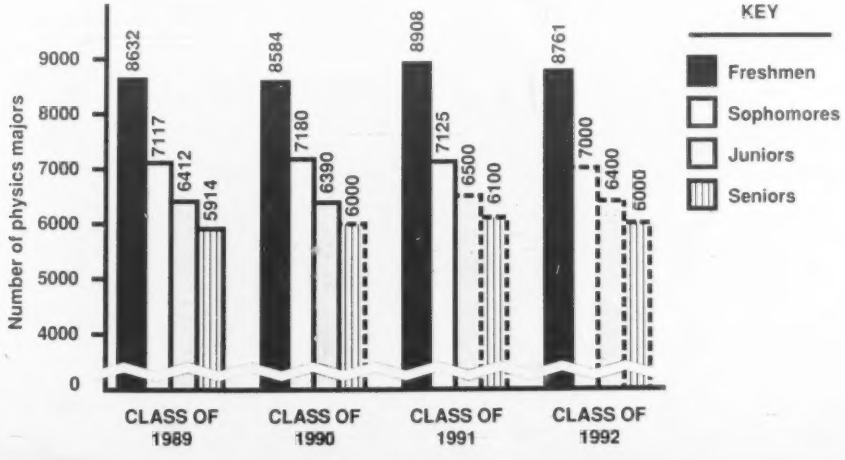

Table V. Attrition of undergraduate physics majors by type of institution, 1977–78 to 1987–88.

Graduating class	Doctorate granting institution		Master's granting institution		Bachelor's granting institution	
	No. of freshmen	% reaching sr. year	No. of freshmen	% reaching sr. year	No. of freshmen	% reaching sr. year
1980	3400	74%	1110	60%	3200	56%
1981	3450	73	1070	63	3310	57
1982	3520	73	1140	63	3410	59
1983	3590	72	1160	63	3510	60
1984	3770	74	1250	60	3550	60
1985	3890	75	1160	68	3560	60
1986	3940	78	1170	69	3570	61
1987	3930	77	1120	71	3590	61
1988	3890	76	1125	71	3585	60

the junior and senior levels, to be able to observe the net attrition over a four-year period.

Of the four graduating classes presented in **Figure II**, the first is the class of 1989, based entirely on actual data. This class shows a 31% attrition between the 8632 freshmen, estimated by the chairpersons in September 1985, and the 5914 seniors recorded as of September 1988. If we apply similar attrition rates to the other three classes that include projections, we can expect last September's 8761 freshmen to become 6000 seniors for the class of 1992.

For a more detailed look at the attrition rates of undergraduate physics majors we examine the proportion of freshmen who reach senior status at each of the three types of physics departments. It appears from the data in **Table V** that the retention rates are highest at the PhD-granting departments and lowest at the four-year colleges. Changes in those retention rates since 1980 were greatest at the master's institutions. For example, at the master's institutions 60% of the 1110 freshmen in 1976–77 reached senior status in 1979–80. Eight years later, in 1984–85, the total number of freshman physics majors had hardly changed (1125) but the proportion reaching senior status had increased to 71% for that type of institution.

Undergraduate physics degree programs are offered all over the U.S. as indicated by the geographic distribution of physics majors in **Table VI**. Ten years ago we became aware that for some 500 students, senior status extended over more than one year. Hence we restructured the table of physics majors to include an additional column described as "Fifth year undergraduates." This group has more than doubled in that ten-year period. The most common reasons for requiring additional time are: a loss of credits associated with a transfer from a two-year college, and completing the senior year on a part-time basis.

The lower portion of **Table VI** presents the kinds of information, undergraduate enrollments by type of institution, from which the trend data of **Table V** were calculated.

Table VI. Undergraduate physics majors by geographic region and type of institution, 1988–89.

Geographic region*	Estimated** no. of freshmen	Estimated** no. of sophomores	Number of juniors	Number of seniors	Fifth-year undergraduates
New England	622	569	522	503	51
Mid Atlantic	1461	1182	997	899	117
E. N. Central	1398	1154	985	866	172
W. N. Central	736	660	526	492	88
S. Atlantic	1346	1104	907	812	132
E. S. Central	330	306	256	233	53
W. S. Central	772	518	546	496	82
Mountain	622	460	460	491	156
Pacific	1474	1172	1191	1122	350
Total	8761	7125	6390	5914	1201
Doctorate granting inst.	3762	3037	3018	2972	626
Master's granting inst	1052	896	822	795	213
Bachelor's granting inst.	3947	3192	2550	2147	362

** New England—CT, ME, MA, NH, RI, VT; Middle Atlantic—NJ, NY, PA; East North Central—IL, IN, MI, OH, WI; West North Central—IA, KS, MN, MO, NE, ND, SD; South Atlantic—DE, DC, FL, GA, MD, NC, SC, VA, WV; East South Central—AL, KY, MS, TN; West South Central—AR, LA, OK, TX; Mountain—AZ, CO, ID, MT, NV, NM, UT, WY; Pacific—AK, CA, HI, OR, WA.*

***Estimates of potential physics majors are made by the physics department chairpersons.*

Table VII. Trend in entering U.S. and foreign graduate physics students, 1979–1989.

Academic year	No. of first-year graduate students U.S.	Foreign	Total	% foreign students of total
1979–80	1700	739	2439	30.3
1980–81	1720	844	2564	32.9
1981–82	1654	983	2637	37.3
1982–83	1576	1054	2630	40.1
1983–84	1763	1092	2855	38.2
1984–85	1747	1116	2863	39.0
1985–86	1721	1260	2981	42.3
1986–87	1799	1363	3162	43.1
1987–88	1944	1330	3274	40.6
1988–89	1825	1307	3132	41.7

Graduate enrollment

Justification for the growing concern about convincing more U.S. citizens to enroll in graduate physics programs can be found in the data presented in **Table VII**. This table takes us back to 1980 when approximately 2500 first-year graduate physics students included 30% foreign citizens. Ten years earlier, in 1970, the number of first-year graduate physics students was 3500 and only 18% of them were foreign citizens. As we approach the decade of the 1990s the proportion of foreign graduate students is over 40%; the last two rows of **Table VII** show no signs of the trend reversal that would be needed to meet the demand for physicists in the 1990s.

Approximately 10% of all graduate physics students are enrolled at master's institutions, and that proportion has hardly changed during the past decade as indicated in **Table VIII**. However the composition of the student body at these two types of graduate institutions did undergo several changes. For example, as the influx of foreign students spread to the master's institutions the traditional 1:1 ratio of full-time to part-time students gradually changed to a 2:1 ratio because foreign students by and large are full-time students fully supported by funds from the universities. The number of part-time students, most of whom are U.S. citizens, are full-time employees of industrial companies in their geographic areas. In this way master's institutions perform a major function by providing limited graduate training in late afternoon and evening programs that are geared to the needs of local employers.

Table VIII. Full-time, part-time, and foreign graduate physics enrollment by type of institution, 1979–1989.

	Graduate students at doctorate granting institutions					Graduate students at master's granting institutions				
Academic year	Full-time	Part-time	Foreign	% foreign of total	Total	Full-time	Part-time	Foreign	% foreign of total	Total
1979–80	8 059	685	2390	27.3	8 744	550	353	146	16.2	903
1980–81	8 302	760	2540	28.0	9 062	484	388	163	18.7	872
1981–82	8 555	718	2894	31.2	9 273	543	357	213	23.7	900
1982–83	8 712	812	3193	33.5	9 524	566	339	221	24.4	905
1983–84	9 285	721	3433	34.3	10 006	569	347	254	27.7	916
1984–85	9 647	710	3811	36.8	10 357	604	376	293	29.9	980
1985–86	10 119	818	4259	38.9	10 937	620	454	306	28.5	1074
1986–87	10 538	851	4519	39.7	11 389	772	455	397	32.4	1227
1987–88	11 015	865	4813	40.5	11 880	797	466	448	35.5	1263
1988–89	11 182	887	5049	41.8	12 069	830	462	471	36.5	1292

Table IX. Regional distribution of U.S. and foreign teaching assistants by type of institution, 1988–89.

Geographic region*		Doctorate-granting institutions		Master's-granting institutions	
		Total no. of TA's	Total no. of foreign TA's	Total no. of TA's	Total no. of foreign TA's
New England		519	259	25	18
Mid Atlantic		770	456	27	4
E. N. Central		764	358	174	101
W. N. Central		274	129	52	25
S. Atlantic		582	262	81	34
E. S. Central		148	75	48	23
W. S. Central		446	280	52	37
Mountain		328	180	8	6
Pacific		603	223	64	21
Total	N	4434	2222	531	269
	%		50.1%		50.7%

**See Table VI for explanation of geographic region.*

The great majority of foreign students compete with U.S. students for the available teaching assistantships at the institutions that enroll them because they hold visas that make them ineligible for off-campus employment; also, few foreign students (2%) receive support from their native countries. **Table IX** indicates that half of the teaching assistantships at either type of graduate physics department are held by foreign students. The total number of foreign teaching assistants increased by 18% since 1984–85.

Degrees granted

The median number of years of graduate study required to complete a physics doctorate remains between five and six years and has a range from three to more than ten years. Since the early 1970s, the correlation that existed between the first-year graduate students at PhD-granting institutions and the number of doctorates granted five years later was so high that it formed a reliable basis for projecting the number of doctorates five years into the future. At this time we are revising our projection method used in **Figure III** to incorporate the increasing number of foreign students who are transferring each year from the master's institutions probably as third- or fourth-year graduate students. Hence we project a total of 1250 physics doctorates to be conferred in 1993.

Figure III. Actual and projected number of physics doctorates granted, 1978-1993.

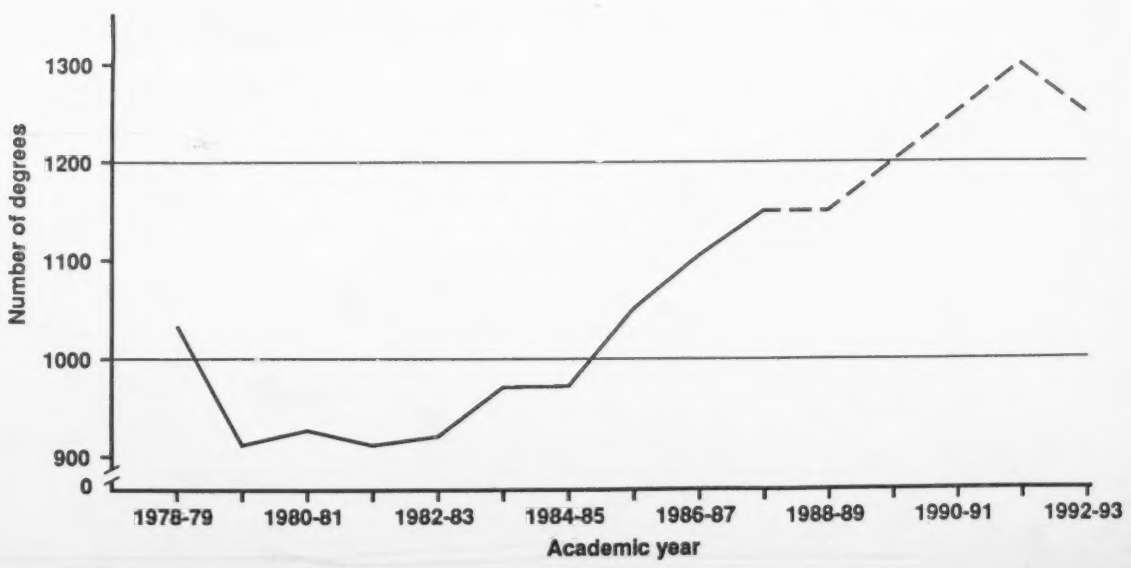

Table X. Physics degrees by type of institution and geographic region, 1987–88.**

Geographic region*	Bachelor's degrees			Master's degree		Terminal master's degrees		Doctorates
	Institution type			Institution type		Institution type		Institution type
	I	II	III	II	III	II	III	III
New England	132	19	340	11	117	2	39	151
Mid Atlantic	444	47	390	6	180	10	102	220
E. N. Central	338	135	357	45	145	58	107	202
W. N. Central	254	34	124	12	37	10	28	52
S. Atlantic	292	116	300	19	71	30	64	108
E. S. Central	111	65	51	11	26	11	15	28
W. S. Central	149	49	161	11	63	27	45	85
Mountain	103	10	241	0	43	3	43	75
Pacific	278	116	496	8	230	27	77	229
Subtotal	2101	591	2460	123	912	178	520	1150
Subtotal				1035		698		
Total		5152			1733			1150

See Table VI for explanation of geographic region.
***Institution type indicates the highest physics degree offered; type I = Bachelor's degree, type II = Master's degree, type III = Doctorate.*

The four types of degrees shown in **Figure I** and granted by three types of institutions are presented in considerable detail for the year 1987–88 in **Table X**. For example, this table shows that a master's institution grants not only terminal master's degrees but also those granted enroute to a higher physics degree. In 1987–88, 123 degree recipients fell into the category of having to transfer to another institution to pursue doctoral studies. Doctoral institutions continue to grant three times as many terminal master's degrees as the master's institutions do.

There is comparatively little information available on the minority groups in the physics community. We define minority groups as those who have a small but noted representation among the physics degree recipients, a definition that clearly applies to women physics graduates. Our sources of information are (1) the reports from physics department chairpersons in connection with this survey of Enrollments and Degrees, and (2) identification with minority groups by individual degree recipients who respond to one of two student surveys. **Table XI** lists six specific minority groups (not including women) four of which include a majority of foreign citizens; they are Hispanics, Orientals, Asian Indians and Arabs. The group of graduates showing a distinct decline, at all degree levels, from previous years are the Arabs.

Table XI. Number of physics degrees granted by sex and minority group* status, 1987–88.

Type of degrees	Sex	Total no. of degrees	Black	Native American Indian	Hispanic	Oriental	Asian Indian	Arab
Bachelor's	Men	4380	132	4	42	135	55	30
	Women	772	47	0	11	26	11	8
	Total	5152	179	4	53	161	66	38
Master's enroute	Men	901	8	2	17	142	38	12
	Women	134	1	1	1	31	13	2
	Total	1035	9	3	18	173	51	14
Terminal master's	Men	588	16	2	8	56	18	10
	Women	110	2	0	2	20	8	2
	Total	698	18	2	10	76	26	12
Doctor's	Men	1040	10	0	21	157	56	15
	Women	110	2	1	3	27	17	2
	Total	1150	12	1	24	184	73	17

**Minorities in AIP surveys are defined as groups with a low representation in the physics community, but one whose participation has aroused considerable interest.*

ASTRONOMY

Table XII. Trend in astronomy enrollments and degrees, 1979–1989.

Academic year	No. of astronomy degrees granted (July 1 to June 30)				Undergraduate astronomy major enrollments		Graduate astronomy enrollments*	
	Bachelor's	Master's enroute	Terminal master's	Doctor's	Juniors	Seniors	Total	1st year
1979–80	165	27	27	106	262	242	698	154
1980–81	156	34	24	82	275	238	686	164
1981–82	181	54	15	70	252	224	647	142
1982–83	138	61	22	81	274	232	670	178
1983–84	137	51	22	74	242	217	688	154
1984–85	145	56	16	66	239	212	716	151
1985–86	169	61	24	86	232	252	711	170
1986–87	172	38	23	72	268	255	755	173
1987–88	181	51	24	94	250	285	731	171
1988–89					213	275	780	169

**Includes part-time students.*

A situation parallel to that of the physicists exists for the astronomers: the anticipated demand for astronomers in the 1990s appears to exceed the numbers of students currently preparing themselves for that career. **Table XII** presents trend data on enrollments and degrees reported by two types of departments: the separate astronomy departments and those where physics and astronomy are combined.

Table XIII focuses on the most recent enrollment and degree data and shows the respective contributions from the 26 combined and the 39 separate astronomy departments. Unlike physics, the graduate astronomy departments appear to have a large pool of applicants from which to select their graduate students. Doctoral departments offer an acceptance to only one in ten applicants. On the other hand, the major contributors to the enrollment in introductory astronomy courses are the physics departments.

Table XIII. Astronomy* enrollments 1988–89 and degrees 1987–88 by type of institution.

		Bachelor's granting		Master's granting		Doctorate granting		Total
Type of astronomy department		Comb. dep'ts	Sep. dep'ts	Comb. dep'ts	Sep. dep'ts	Comb. dep'ts	Sep. dep'ts	
Number of dep'ts		14	7	2	2	10	30	65
Astronomy degrees	Bachelor's	23	16	6	6	11	119	181
	Master's enroute	–	–	1	1	5	44	51
	Terminal master's	–	–	3	2	4	15	24
	Doctor's	–	–	–	–	12	82	94
Astronomy enrollments	Annual intro. enrollments in astronomy dep'ts	6630	2770	2225	1735	6500	48 740	68 600
	Estimated annual intro. astronomy enrollments in physics dep'ts	–	–	–	–	–	–	100 000
	Total annual intro. enrollments	–	–	–	–	–	–	168 600
	Junior astronomy majors	35	19	4	10	17	128	213
	Senior astronomy majors	29	21	6	8	17	194	275
	No. of applicants to grad. programs	–	–	11	9	556	2 169	2 745
	No. of acceptances to grad. programs	–	–	2	4	49	183	238
	First year graduate students	–	–	2	4	24	139	169
	Total graduate enrollment	–	–	17	18	93	652	780

**This survey includes only degree-granting astronomy departments.*
Note: The 1988–89 questionnaire was changed to request annual introductory enrollments.

A1960-2.6U

AMERICAN INSTITUTE OF PHYSICS
335 East 45th Street
New York, NY 10017-3483

AIP REPORT
EDUCATION & EMPLOYMENT
STATISTICS DIVISION
Tel. 212-661-9404

by Susanne D. Ellis
and Patrick J. Mulvey

AIP Pub. No. R-151.26b

May 1989

DATA ON ASTRONOMY ENROLLMENTS AND DEGREES

This supplement is an institutional listing of the 65 degree-granting astronomy/astrophysics departments in the U.S., 26 of which are combined physics and astronomy departments. The institutions are listed in alphabetic order by state. For each institution the 1987-88 degrees and the 1988-89 enrollments are given.

Notations used in this supplement are:

- C Combined physics and astronomy department.
- S Separate astronomy department.
- * Institution grants master's degree as its highest astronomy degree.
- ** Institution grants doctorate as its highest astronomy degree.
- 1 No undergraduate degree program in astronomy.

Member Societies: The American Physical Society • Optical Society of America • Acoustical Society of America • The Society of Rheology • American Association of Physics Teachers
American Crystallographic Association • American Astronomical Society • American Association of Physicists in Medicine • American Vacuum Society • American Geophysical Union

Institution	Type of dept.	1988-89 ASTRONOMY ENROLLMENTS: Introductory with prior physics	Introductory without prior physics	Undergraduate majors Jrs.	Undergraduate majors Srs.	Graduate students ft + pt Total	Graduate students 1st yr.	1987-88 ASTRONOMY DEGREES: BS/BA	MS	TMS	PHD
ARIZONA											
**AZ-U. of	S	-	3000	10	15	33	7	9	-	-	6
CALIFORNIA											
**CA Inst. of Tech.	C	30	-	5	1	26	8	1	-	-	3
**CA-U. of Berkeley	S	70	651	7	13	29	5	10	5	0	4
**CA-U. of Los Angeles	S	264	2473	18	15	21	4	2	6	-	2
1**CA-U. of Santa Cruz	S	50	1157	-	-	21	2	-	2	-	5
*San Diego State U.	S	-	1500	9	7	17	4	4	1	1	-
Southern CA-U. of	S	65	615	3	2	-	-	2	-	-	-
COLORADO											
1**CO-U. of Boulder	S	-	3000	-	-	29	4	-	0	0	5
CONNECTICUT											
*Wesleyan U.	S	35	200	1	1	1	0	2	0	1	-
**Yale U.	S	17	167	3	2	16	4	1	0	0	3
DELAWARE											
**DE-U. of	C	15	350	-	-	13	3	1	0	-	0
DISTRICT OF COLUMBIA											
Howard U.	C	-	45	0	0	-	-	0	-	-	-
FLORIDA											
**FL-U. of Gainesville	S	12	3916	3	5	31	6	6	4	1	2
GEORGIA											
Agnes Scott Coll.	C	-	40	3	0	-	-	0	-	-	-
GA-U. of	C	-	501	4	0	-	-	0	-	-	-
Valdosta State Coll.	C	1	344	1	1	-	-	1	-	-	-
HAWAII											
1**Hawaii-U. of	C	37	580	-	-	20	5	-	5	0	7
ILLINOIS											
1**Chicago-U. of	S	-	260	-	-	36	10	-	2	-	1
**IL-U. of Urbana	S	252	2511	6	5	18	4	3	2	-	2
**Northwestern U.	C	15	160	1	1	2	0	2	0	-	1

Institution	Type of dept.	1988-89 ASTRONOMY ENROLLMENTS: Introductory with prior physics	Introductory without prior physics	Undergraduate majors Jrs.	Undergraduate majors Srs.	Graduate students ft + pt Total	Graduate students 1st yr.	1987-88 ASTRONOMY DEGREES: BS/BA	MS	TMS	PHD
INDIANA											
**IN-U. of Bloomington	S	40	565	6	7	18	3	3	1	-	3
IOWA											
1**IA State U.	C	95	950	-	-	8	2	-	0	3	0
*IA-U. of	C	-	2022	3	3	13	2	5	1	1	-
KANSAS											
KS-U. of	C	-	465	2	6	-	-	5	-	-	-
MARYLAND											
**MD-U. of	S	100	2000	9	8	29	8	3	2	0	5
MASSACHUSETTS											
**Boston U.	S	60	800	7	5	20	5	10	0	0	0
**Harvard U.	S	54	556	4	5	20	6	4	10	-	4
**MA-U. of Five Coll.	S	-	1105	6	12	30	5	6	1	2	4
Wellesley Coll.	S	-	200	3	5	-	-	3	-	-	-
Williams Coll.	S	32	120	3	2	-	-	0	-	-	-
MICHIGAN											
MI State U.	C	25	2350	10	7	-	-	9	-	-	-
**MI-U. of	S	25	1350	4	4	18	7	6	-	-	1
MINNESOTA											
Mankato State U.	S	5	1200	2	3	-	-	3	-	-	-
**MN-U. of	S	-	3000	8	18	16	6	6	0	1	3
NEBRASKA											
**NE-U. of Lincoln	C	15	1141	1	3	3	3	1	0	1	0
NEW JERSEY											
**Princeton U.	S	40	150	3	6	16	3	3	-	1	2
NEW MEXICO											
1**NM State U.	S	-	292	-	-	14	4	-	0	1	1
NM-U. of	C	56	1001	5	7	-	-	4	-	-	-
NEW YORK											
**Columbia U.	S	37	312	5	4	10	4		1	1	1
1**Cornell U.	S	-	450	-	-	21	3		2	1	2
**Rochester-U. of	C	45	156	2	5	8	2		-	-	1
**SUNY-Stony Brook (Earth & Space Sci.)	S	20	850	2	11	15	2		-	1	3
Vassar Coll.	C	-	200	2	0	-	-	0		-	-

Institution	Type of dept.	1988-89 ASTRONOMY ENROLLMENTS: Introductory with prior physics	Introductory without prior physics	Undergraduate majors Jrs.	Undergraduate majors Srs.	Graduate students ft + pt Total	Graduate students 1st yr.	1987-88 ASTRONOMY DEGREES: BS/BA	MS	TMS	PHD
OHIO											
**Case Western Reserve	S	-	50	2	2	3	0	3	0	1	2
Mount Union Coll.	C	4	25	1	0	-	-	0	-	-	-
**OH State U.	S	-	3200	3	7	14	3	0	1	1	3
Youngstown State U.	C	-	1200	1	0	-	-	2	-	-	-
OKLAHOMA											
**OK-U. of	C	-	1500	8	7	8	1	0	0	0	0
PENNSYLVANIA											
Haverford Coll.	S	10	120	2	2	-	-	5	-	-	-
Lycoming Coll.	C	-	109	1	1	-	-	0	-	-	-
**PA State U.	S	178	3440	9	8	18	2	7	0	0	0
**PA-U. of	S	123	681	2	1	7	1	1	-	-	1
**Pittsburgh-U. of	C	-	1008	0	0	2	0	0	0	0	0
Swarthmore Coll.	C	20	100	3	2	-	-	1	-	-	-
Villanova U.	S	41	187	3	5	-	-	2	-	-	-
TENNESSEE											
*Vanderbilt U.	C	-	203	1	3	4	0	1	-	2	-
TEXAS											
1**Rice U. Space Physics	S	25	175	-	-	35	9	-	2	5	5
**TX-U. of Austin	S	123	6600	5	13	53	9	6	0	1	6
UTAH											
1**Brigham Young U.	C	20	385	-	-	3	0	-	-	-	0
VERMONT											
Marlboro Coll.	C	-	11	0	0	-	-	1	-	-	-
VIRGINIA											
**VA-U. of	S	40	2150	3	8	22	3	7	1	-	2
WASHINGTON											
**WA-U. of	S	70	1100	2	4	25	7	2	2	0	2
Whitman Coll.	S	50	125	3	2	-	-	1	-	-	-
WISCONSIN											
**WI-U. of Madison	S	60	980	2	16	14	3	13	0	-	2
WYOMING											
WY-U. of	C	-	239	2	5	-	-	0	-	-	-
U.S. Total		2 276	66 323	213	275	780	169	181	51	24	94